

## OCCURRENCES

The map showing the numbered selenium occurrences is plate 18, on page 47 in volume 2.

## FERRY COUNTY

**Blaine Republic**

(see Republic under gold)

**Flag Hill (2)**

(see under gold)

**Golden Valley**

(see Valley under gold)

**Lamefoot**

(see Valley under gold)

**Republic (3)**

(see under gold)

**Valley (1)**

(see under gold)

## SILICON

**Properties**—Although silicon is ordinarily classified as a nonmetallic element, it does possess some metallic properties, and the pure element is commonly called "silicon metal." Massive silicon is crystalline, lustrous, gray black, and metallic appearing. It is brittle and is harder than glass. It is classified as a semi-conductor; that is, it has only slight conductivity for electricity. Silicon has poor mechanical properties, thus it presents a challenge to metallurgists to adapt it to structural uses in order to utilize such desirable characteristics as light weight (lighter than aluminum), corrosion resistance, high melting point, and ease of production. Silicon is almost inert chemically at low temperatures but is active when heated. It closely resembles carbon in its chemical properties and always displays a valence of 4. Other properties are shown in the table on page 12.

**Uses**—The use of silicon, mostly in the form of ferrosilicon, in making steel is of utmost importance, silicon being used in about 90 percent of the steel made in this country. Normally, just enough silicon is added to each melt to act as a deoxidizer and degasifier, but sometimes enough is added to make silicon-steel alloys, the latter use accounting for about 10 percent of the silicon consumed in this country. Silicon also is used as a scavenger and as an alloy constituent with copper and aluminum alloys. Silicon is used as a heat- and corrosion-resistant coating on other metals, and the pure material is used in transistors, rectifiers, and other electrical equipment. Silicon compounds have many important industrial uses, but few, if any, of these compounds are made from metallic silicon.

**Production**—In Washington ferrosilicon is produced in electric furnaces at three plants, those of the Keokuk Electro-Metals Co. at Rock Island, the Ohio Ferro-Alloys Co. at Tacoma, and the Pacific Northwest Alloys, Inc. at Mead. Of these, the first two have produced metallic silicon also.

**Prices**—Silicon of 97 percent purity sold at 20 cents per pound in 1951; in August 1952 the price dropped to 18½ cents, and was still at that figure 3 years later. One pound of extremely pure silicon for electrical use was imported in 1950, and the quoted value was \$517 per pound. Material of similar purity was quoted at \$430 per pound in 1952.

**Ore minerals and geology**—After oxygen, silicon is the most abundant element and makes up nearly 28 percent of the earth's crust. With the exception of the carbonates, all the common rocks of the earth's crust are siliceous. Although the element is very abundant, it never occurs free but always in combination in a great variety of minerals, mostly silicates, such as feldspars, amphiboles, pyroxenes, micas, and clays. However, the oxide, quartz is the most abundant of all the silicon minerals, and it is the only mineral which serves as an ore of silicon. In spite of the abundance and widespread distribution of quartz, there are few deposits of the mineral suitable as ore of silicon or ferrosilicon. Ore specifications are hard to meet in that they call for extremely high silica content, low iron, phosphorus, and calcium, and for unusual physical properties.

## OCCURRENCES

Occurrences of massive quartz, the principal ore of silicon, are described in Part I of this report. Also in Part I are descriptions of occurrences of quartzite, some

of the most pure of which have been mined for the manufacture of ferrosilicon and which might conceivably be mined as ore of silicon.

## SILVER

**Properties**—Silver is a pure-white metal having a brilliant, perfect metallic luster. It is a little harder than gold, and is exceeded only by gold in ductility and malleability. Polished silver reflects visible light as well as, or better than, other metals, is a good reflector of infrared radiation, but is inferior to aluminum and many other metals as a reflector of ultraviolet light. Silver is the best of the metals as a conductor of heat and electricity. The molten metal in air dissolves 22 times its own volume of

oxygen, which, when the melt cools, escapes with a sputtering sound and a flash of light. Silver is not ordinarily oxidized by air, and resists attack by many chemicals, but it tarnishes readily when contacted by sulfur compounds. The element is univalent. Other properties are shown in the table on page 12.

**Uses**—Silver has been used since earliest times for coins and ornamental articles, and the largest use is still for monetary purposes. Much of it is simply hoarded,

both by individuals and by governments. In the arts and industries the largest use is for sterling and plated tableware. Photography is using increasing quantities, mostly in the form of silver nitrate. Solid silver and alloys and silver plating are used in jewelry, trophies, and as lining in laboratory equipment and in brewing and food-processing machinery. It is used in electrical equipment (especially for its anti-arcing properties at contact points), for dental and surgical instruments, dental amalgams, medicines, and for coating mirrors. Alloyed with lead, zinc, and tin, it is used as bearing metal, and in other alloys as solder and brazing rods. A lead-silver alloy is used as anodes for production of electrolytic zinc. Some silver compounds are used as catalysts in certain chemical industries, and other silver chemicals are used to convert sea water to drinking water. During wartime shortages of copper and aluminum, large quantities of silver were used temporarily for electrical conductors.

**Production**—In Washington, silver production in most years is outranked by that of gold, copper, lead, and zinc. Maximum annual production was 721,450 ounces, valued at \$328,070, in 1902. Production in 1950 was 363,656 ounces, valued at \$329,127, and total production through 1952 has been 14,871,542 ounces, valued at \$10,957,311. In total silver production through 1952, Washington ranks tenth among the states. In 1950 no Washington mine was among the 25 largest producers of silver in the country. It has been many years since any large mine in this state has produced silver as its principal value, although at one time several mines in the Nighthawk, Nespelem, and Ruby-Conconully districts of Okanogan County and in the Chewelah and Colville districts of Stevens County were notable silver producers. Silver is a byproduct of nearly all gold mines and most copper, lead, and zinc mines. The Knob Hill mine (gold ore) was the leading silver producer in 1950, followed by the Holden mine (copper-gold-zinc ore), Bonanza mine (lead ore), Gold King mine (gold ore), and Grandview mine (zinc-lead ore). These 5 mines produced 94 percent of the state total of silver in 1950.

**Prices**—Silver prices in the past 50 years have fluctuated generally with the prices of the base metals. The highest level was \$1.35 per ounce in 1920, but in the same year the price dropped to 65 cents, and the lowest price for silver was 24 cents in 1932. The U. S. Treasury buying price of newly mined domestic silver was set at 71.1 cents in 1939 and changed to 90.5 cents in 1946. The latter price was still in effect in 1955. The New York open-market price for foreign and secondary silver has been from 5 to 20 cents less than the Treasury price.

**Ore minerals**—Silver occurs native and alloyed with gold, copper, and mercury, and also in at least 55 well-known silver minerals as a sulfide, arsenide, antimonide, telluride, chloride, bromide, and iodide, and as numerous sulfosalts. The commonest ore is silver-bearing galena, and fairly common are silver-bearing pyrite, sphalerite, and minerals of copper and cobalt. Of the copper minerals which carry silver, perhaps the commonest is the silver-rich variety of tetrahedrite known as freibergite. Some of the chief silver minerals are cerargyrite (horn silver),  $\text{AgCl}$ , containing 75.3 percent silver; argentite,  $\text{Ag}_2\text{S}$ , containing 87.1 percent silver; stephanite,  $\text{Ag}_3\text{SbS}_4$ , containing 68.5 percent silver; pyrargyrite (ruby silver)  $\text{Ag}_3\text{SbS}_3$ , containing 59.9 percent silver; and proustite,  $\text{Ag}_3\text{AsS}_3$ , containing 65.5 percent silver.

**Geology**—Although silver occurs in some deposits as the principal value, more commonly it accompanies gold, lead, zinc, and copper, and so its origin and type of deposit may be extremely varied. Most of the silver of the world comes from the North American Cordillera, where it is commonly associated with Tertiary intrusive and volcanic rocks such as diorite, monzonite, granodiorite, rhyolite and andesite. Most of the silver is in fissure veins or related deposits of irregular shape, in which the ores have been deposited from solution in open spaces or by replacement. The lodes may be in almost any kind of rock, and the common gangue is quartz, calcite, dolomite, or rhodochrosite.

#### OCCURRENCES

The maps showing the numbered silver occurrences are plates 19 and 20, on pages 51 and 53 in volume 2.

#### BENTON COUNTY

**Prosser (1)**  
(see under gold)

#### CHELAN COUNTY

**Allen Magnesium**  
(see under gold)

**Amigo (79)**  
(see under gold)

**April Fool (61)**  
(see under gold)

**Arizona (36)**  
(see under copper)

**Big Chief**  
(see under lead)

**Big Elephant**  
(see under gold)

**Black Warrior (17)**  
(see under copper)

**Black and White (84)**  
(see under gold)

**Blue Jay (29)**  
(see under copper)

**Blue Jay Extension (38)**  
(see under copper)

**Bryan (47)**  
(see under copper)

**Budge (83)**  
(see under gold)

**Buster (22)**

(see under gold)

**Butte**

(see under copper)

**Caledonia (62)**

(see under gold)

**Canada (30)**

(see under copper)

**Cascade Consolidated (11)**

**Loc:** Sec. 31, (35-15E), Horseshoe Basin area. **Owner:** Cascade Consolidated Mining & Smelting Co. (1934). **Ore:** Silver, lead, zinc, gold. **Ref:** 67, p. 39. 114, no. 5, 1909. 119, no. 3, 1912, p. 7. 158.

**Charlotte (86)**

(see under gold)

**Chub (26)**

**Loc:** Sec. 2, (31-18E), on both sides of Meadow Cr. **Access:** About 1 mi. of trail from mouth of Meadow Cr. **Prop:** 1 claim. **Owner:** M. M. Kingman and R. N. Pershall (1897). **Ore:** Silver, gold. **Ore min:** Sulfides. **Dev:** 30-ft. shaft. **Assays:** \$14 Au, \$18 Ag. **Ref:** 63, p. 81. 67, p. 31.

**Clagstone (4)**

(see under lead)

**Copper King**

(see Pickwick under copper)

**Crown Prince and Free Coinage**

(see under copper)

**Culver (68)**

(see under gold)

**Daisy Dean (74)**

(see under gold)

**Davenport (7)**

(see under copper)

**Defender (3)**

(see under copper)

**Diamond Dick**

(see Black and White under gold)

**Dominion**

(see Union and Dominion under gold)

**Donaldson (63)**

(see under gold)

**Doubtful (13)**

(see under lead)

**Drummer Boy (51)**

(see under gold)

**Elephant (35)**

**Loc:** NW¼ sec. 7, (31-19E), on S. side of Cascade Cr., Meadow Cr. dist. **Prop:** 2 claims. **Owner:** J. M. Scheueyaule (1897). **Ore:** Silver. **Assays:** As high as 50 oz. Ag. **Ref:** 63, p. 81. 67, p. 32.

**Ellen**

(see Van Epps under antimony)

**Emma Lee**

(see under gold)

**Esmeralda**

(see under gold)

**Excelsior**

(see Nevada and Excelsior under gold)

**Falls (14)**

(see under lead)

**Flamingo (20)**

(see under copper)

**Flora**

(see Lake and Flora under gold)

**Francis L.**

(see Golden Guinea under gold)

**Franklin (10)**

(see under lead)

**Free Coinage**

(see Crown Prince and Free Coinage under copper)

**Galena (8)**

(see under lead)

**Gem (82)**

(see under gold)

**Gem (39)**

(see under copper)

**Gold King**

(see Golden King under gold)

**Gold Knob (85)**

(see under gold)

**Golden Guinea (75)**

(see under gold)

**Golden King (87)**

(see under gold)

**Gordon (80)**

(see under gold)

**Grace (31)**

(see under copper)

**Gray Eagle**

**Loc:** At head of Bridge Cr., Stehekin dist. **Owner:** Messrs. Rogers and Howe, Waterville, Wash., and Oscar Johnson and Peter Dalberg (1897). **Ore:** Silver, gold. **Assays:** 140 oz. Ag, \$4 Au. **Ref:** 63, p. 84. 67, p. 40.

**Great Republic**

(see under lead)

**Hidden Treasure (53)**

(see under gold)

**Holden (44)**

(see under copper)

**Homestake (64)**

(see under gold)

**Homestake and Star (18)**

**Loc:** Sec. 5, (34-15E), across the canyon from the Isoletta mine, Horseshoe Basin area. **Owner:** R. N. Pershall, M. M. Kingman, and Charles Johnson (1897). **Ore:** Silver, gold. **Deposit:** Ore body 4 ft. wide. **Dev:** 30-ft. open cut. **Assays:** 112 to 400 oz. Ag, \$15 Au. **Ref:** 63, p. 83. 67, p. 40.

**Horseshoe Basin (6)**

(see under lead)

**Howe Sound**

(see Holden under copper)

**Humbug**

(see under lead)

**Hummingbird (69)**

(see under gold)

**Hunter (41)**

**Loc:** SW¼ sec. 12, (31-18E), on shore of Lk. Chelan just N. of mouth of Cascade Cr. **Prop:** 2 claims. **Owner:** D. H. Lord and A. W. Chapelle (1897). **Ore:** Silver, gold, copper. **Ore min:** Pyrrhotite, tetrahedrite. **Deposit:** 4-in. paystreak. **Dev:** 15-ft. adit. **Assays:** 140 oz. Ag, \$16 Au. **Ref:** 63, p. 82. 67, p. 32.

**Idaho (32)**

(see under copper)

**Indiana**

(see under lead)

**Iowa (37)**

(see under gold)

**Irene**

(see Holden under copper)

**Isoletta (19)**

**Loc:** Sec. 5, (34-15E), Stehekin dist. **Owner:** J. D. and R. N. Pershall, C. C. May, and Mrs. Hess (1897). **Ore:** Silver, gold. **Dev:** 215-ft. adit. **Assays:** 300 to 700 oz. Ag, \$3 to \$7 Au. **Prod:** 2,200 lb. shipped returned \$60 per ton. **Ref:** 63, p. 83. 67, p. 38.

**Ivanhoe**

(see Wilder under gold)

**Keefer Brothers**

(see under molybdenum)

**King Solomon (23)**

(see under copper)

**King Solomon (Pickwick)**

(see Pickwick under copper)

**King Solomon (Van Epps)**

(see Van Epps under antimony)

**Kingman**

(see Galena under lead)

**Lake and Flora**

(see under gold)

**Lake Shyall (21)**

(see under copper)

**Leo**

(see under copper)

**Little Jap (27)**

**Loc:** NW¼SE¼ sec. 3, (31-18E), on shore of Lk. Chelan about 500 ft. SW. of Sunday Morning property, Meadow Cr. dist. **Elev:** 1,080 to 1,280 ft. **Access:** Boat from town of Chelan. **Prop:** 4 claims. **Owner:** Crooker Perry, Lakeside, Wash. (1947). **Ore:** Silver, copper, gold. **Ore min:** Pyrite, pyrrhotite, and, according to old reports, pyrrhotite and chalcocite. **Deposit:** A 4-in. gouge seam in granite gneiss contains a ½-in. seam of quartz in which is scattered pyrrhotite and pyrite. **Dev:** Main adit below lake level, 30-ft. adit about 200 ft. above the lake. **Ref:** 63, p. 82. 67, p. 33. 158.

**Logan (5)**

(see under lead)

**Lone Rock (65)**

(see under gold)

**Lottie S.**

(see under copper)

**Lucky Queen (66)**

(see under gold)

**Lulu**

(see under gold)

**Manistee (70)**

(see under gold)

**Marcus Stein (42)**

**Loc:** NE¼ sec. 17, (31-17E), on Wilson Cr., a tributary to Railroad Cr. **Access:** Road from Lucerne. **Prop:** 2 claims. **Owner:** Marcus Stein (1897). **Ore:** Silver, gold. **Ore min:** Pyrrhotite, pyrite. **Gangue:** Quartz. **Ref:** 63, p. 82. 67, p. 36.

**Marion**

(see under gold)

**Maryland**

(see under lead)

**Meadow Creek Strike (33)**

(see under copper)

**Meridian (77)**

(see under gold)

**Michigan**

(see under lead)

**Minneapolis (2)**

(see under gold)

**Moscow (24)**

(see under copper)

**Mountain Sheik**

(see under copper)

**Nebraska (25)**

(see under copper)

**Nelson**

(see Pickwick under copper)

**Nevada and Excelsior**

(see under gold)

**New York (59)**

(see under gold)

**North Pole (78)**

(see under gold)

**North Star (71)**

(see under gold)

**North Star (46)**

(see under lead)

**Ohio**

(see under lead)

**Ombompo (12)**

(see under gold)

**Orphan Boy (40)**

**Loc:** SW¼ sec. 12, (31-18E), at mouth of Cascade Cr., Meadow Cr. dist. **Elev:** 1,160 ft. **Access:** Boat to Cascade Cr. and trail up the creek. **Prop:** 1 claim (formerly included with the Hunter). **Owner:** George La Chapelle, Lakeside, Wash. (1947). **Ore:** Silver, lead, zinc, gold. **Ore min:** Pyrite, pyrrhotite, galena, sphalerite, minor amounts of pyrrhotite, arsenopyrite. **Gangue:** Quartz, gouge, carbonates. **Deposit:** A 7-ft. zone of hydrothermal alteration contains bands of mineralized quartz as much as 3 in. wide. Horses of wall rock also included in the zone. **Dev:** 50-ft. adit, 10-ft. inclined shaft, open cut. **Improv:** Cabin (1947). **Assays:** 8-in. sample across the hanging wall assayed 4.64 oz. Ag, 0.13% Pb, 0.16% Zn. A 6-ft. sample across the footwall assayed 28.64 oz. Ag, 0.02 oz. Au, 0.11% Zn. **Ref:** 132, pp. 59-62. 158.

**P. I. (52)**

(see under gold)

**Panama No. 2**

(see under lead)

**Pangborn (54)**

(see under gold)

**Phyllis (34)**

(see under copper)

**Pickwick**

(see under gold)

**Pickwick (Copper King) (58)**

(see under copper)

**Prairie Dog**

(see under gold)

**Prince of Wales****Loc:** In Maple Cr. Basin, Stehekin dist. **Owner:** John Ferguson (1897). **Ore:** Silver. **Ref:** 63, p. 84. 67, p. 42.**Prospect (72)**

(see under gold)

**Quien Sabe (15)**

(see under lead)

**Rainier (76)**

(see under gold)

**Raymond (43)****Loc:** NE¼ sec. 17, (31-17E), on Wilson Cr., adjacent to Marcus Stein claims on the S., Railroad Cr. dist. **Access:** Near road. **Prop:** 1 claim. **Owner:** Seattle Gold Mining & Development Co. (1897). **Ore:** Silver, gold. **Ore min:** Pyrargyrite, pyrite. **Gangue:** Quartz. **Ref:** 63, p. 82. 67, p. 36.**Red Cap (48)**

(see under gold)

**Red Hill (49)**

(see under gold)

**Red Mountain (50)**

(see under copper)

**Rex (55)**

(see under gold)

**Rogers**

(see Rex under gold)

**Roscoe Conkling**

(see under lead)

**Rouse (16)**

(see under lead)

**Royal**

(see Red Mountain under copper)

**Sailor Boy**

(see under gold)

**Savage**

(see under gold)

**Silver Fiend (57)**

(see under lead)

**Silver Trail (45)**

(see under copper)

**Snook and Ellen**

(see Van Epps under antimony)

**Spokane Boy and Girl**

(see under copper)

**Squillchuck**

(see Golden King under gold)

**Star**

(see Homestake and Star)

**Sunday Morning (28)****Loc:** NW¼SE¼ sec. 3, (31-18E), on E. shore of Lk. Chelan, Meadow Cr. dist. **Elev:** 1,080 ft. **Access:** Boat from the town of Chelan. **Prop:** 1 claim. **Owner:** Crooker Perry, Lakeside, Wash. (1947). **Ore:** Silver, lead, gold. **Ore min:** Galena, pyrite, pyrargyrite. **Gangue:** Quartz. **Deposit:** A 4-ft. zone of hydrothermal alteration in granite gneiss contains a ½- to 2-in. stringer of sparsely mineralized quartz. **Dev:** A 70-ft. adit, under water when the lake is high. **Assays:** A shipment returned \$250 per ton gross. **Prod:** 4,600 lb. were shipped prior to 1897. **Ref:** 63, p. 82. 67, p. 30. 97, 1918, p. 504. 158.**Texas Jack (9)**

(see under copper)

**Tiger (Galena)**

(see Galena under lead)

**Tiger (1)**

(see under gold)

**Union and Dominion (81)**

(see under gold)

**Van Epps (Snook and Ellen) (56)**

(see under antimony)

**Van Epps Copper**

(see Pickwick under copper)

**Velma (60)**

(see under mercury)

**Venus (67)**

(see under gold)

**Wenatchee**

(see Golden King under gold)

**White Elephant**

(see Wilder under gold)

**White Star**

(see under lead)

**Wilder (73)**

(see under gold)

**CLALLAM COUNTY****Deer Park**

(see under copper)

**CLARK COUNTY****Silver Star (1)**

(see under copper)

**COWLITZ COUNTY****Green Mountain (1)**

(see under gold)

**FERRY COUNTY****Ada**

(see Laura S. under lead)

**Addie B (163)**

(see under copper)

**Addison (176)**  
(see under copper)

**Admiral (18)**  
(see under gold)

**Advance (48)**  
(see under gold)

**Advance (Cabin) (106)**

**Loc:** Near center NW¼ sec. 35, (32-36E), 1 mi. NW. of Covada. **Elev:** 2,390 to 2,560 ft. **Prop:** 9 claims: Rising Sun, Cora, Nellie, White Quartz, Saturday, Cabin, Tamarack, Sunbeam, Silver Spray. **Owner:** Advance Mining Co. (1909-1924). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Chalcopryrite, pyrite, galena, pyrrhotite, native silver, sphalerite, pyrrhotite. **Gangue:** Quartz. **Deposit:** 2- to 3-ft. shear zone in schist in which are mineralized lenticular masses of quartz 1 to 16 in. wide. **Dev:** 849-ft. crosscut, 350-ft. drift, 37-ft. winze on lower level. 200-ft. drift, 40-ft. upraise, 35-ft. winze, 350-ft. crosscut on upper level. **Assays:** 8% Pb, 0.05 to 333 oz. Ag, tr. to 0.93 oz. Au. **Ref:** 7, pp. 193-195. 46, pp. 145-147. 98, 1920-1925. 105, no. 15, 1911, p. 536. 112, 1918, p. 163. 114, no. 5, 1909, p. 74. 122, pp. 163-164. 163, pp. 44-47.

**Algonkian (68)**

**Loc:** Sec. 24, (32-36E), 2½ mi. NE. of Covada post office. **Prop:** 1 claim. **Owner:** A. M. Anderson (1912). **Ore:** Silver, gold. **Ore min:** Dark, finely divided sulfides. **Deposit:** 6-in. quartz vein in quartzite shows dark bands, apparently due to finely divided sulfides. **Dev:** 8-ft. shaft and open cut. **Assays:** 0.03 to 0.06 oz. Au, 6.25 to 8 oz. Ag. **Ref:** 122, p. 174. 163, pp. 73-74.

**Alpine (25)**  
(see under gold)

**Anchor**

**Loc:** T. 39 N., R. 34 E., Curlew dist. **Owner:** National Lead-Silver Co. (1918). Phoenix Gold and Copper Mining & Milling Co. (1911-1918). **Ore:** Silver, gold, lead. **Assays:** Av. of 22 assays: 3.05% Pb, 42.9 oz. Ag, 0.89 oz. Au. **Ref:** 98, 1918, p. 18; 1922, p. 1660. 116, no. 2, 1911, pp. 40-41.

**Anderson (157)**  
(see under lead)

**Anecia (26)**  
(see under gold)

**Apex**  
(see Big Chief under lead)

**Apollo**  
(see California under gold)

**Aurum**  
(see Day Mines under gold)

**Belcher (177)**  
(see under copper)

**Ben Hur (27)**  
(see under gold)

**Big Bug (107)**  
**Loc:** SW¼ sec. 35, (32-36E), ½ mi. W. of Covada. **Prop:** 1 claim. **Owner:** H. G. Parmeter (1912). **Ore:** Silver, gold. **Deposit:** 2 quartz veins in quartzite, one 4 to 6 in. wide, the other 6 to 8 in. wide. **Dev:** 20-ft. shaft, 50-ft. crosscut, 2 open cuts. **Assays:** Av. sample of 4-in vein in crosscut assayed tr. Au, 0.40 oz. Ag. **Ref:** 163, pp. 62-63.

**Big Chief (108)**  
(see under lead)

**Big Joker**  
(see Messenger under lead)

**Big Lake (64)**  
(see under lead)

**Big Silver**

**Loc:** Covada dist. **Ore:** Silver. **Prod:** 1934-1935. **Ref:** 97, 1935, p. 352; 1936, p. 217.

**Black Hawk (109)**  
(see under lead)

**Black Tail (110)**  
(see under lead)

**Black Tail (Hope) (28)**  
(see under gold)

**Black Thorn (79)**  
(see under lead)

**Blaine Republic**  
(see Republic under gold)

**Blevins**  
(see Meadow Creek under copper)

**Blue Bird (135)**  
(see under lead)

**Blue Horse (58)**  
**Loc:** Sec. 6, (35-34E), on Iron Mtn., Republic dist. **Access:** 14 mi. SE. of Republic on Iron Mtn. road. **Prop:** 1 claim. **Ore:** Silver, gold. **Ore min:** Arsenopyrite, galena, pyrite. **Deposit:** Quartz vein roughly following the contact between limestone-lime shale series and diorite. **Prod:** Prior to 1913. 1934. **Ref:** 7, p. 201. 97, 1935, p. 353.

**Blue Jacket (59)**  
**Loc:** Sec. 6, (35-34E), on Iron Mtn., Republic dist. **Access:** 14 mi. SE. of Republic on Iron Mtn. road. **Prop:** 1 claim. **Ore:** Silver, lead, gold. **Ore min:** Arsenopyrite, galena, pyrite. **Deposit:** Quartz vein roughly following the contact between limestone-lime shale series and diorite. **Ref:** 7, p. 201.

**Blue Mountain**  
(see Jennie under gold)

**Bodie (29)**  
(see under gold)

**Boston and Butte**  
(see Butte and Boston under gold)

**Boston & New York (Welcome) (9)**  
**Loc:** Sec. 24, (39-33E), Curlew dist. **Owner:** Boston & New York Mines Co. (1924-1926). **Ore:** Silver, copper, lead. **Prod:** 1916, 1928. **Ref:** 97, 1917, p. 501; 1929, p. 425. 98, 1918-1926. 141, p. 22.

**Brimstone**  
(see Paul and Brimstone under gold)

**Buffalo (148)**  
**Loc:** NW¼ sec. 6, (31-37E), 1 mi. E. of Covada. **Prop:** 1 claim. **Owner:** Mr. Thompson (1912). **Ore:** Silver, gold. **Gangue:** Quartz. **Deposit:** 2-ft. vein in schist and quartzite. **Assays:** Av. sample of vein at discovery assayed tr. Au, 0.20 oz. Ag. **Ref:** 163, p. 81.

**Burlington and Delaware (156)**  
(see under lead)

**Butte and Boston (49)**  
(see under gold)

**Butterfly (111)**  
(see under lead)

**Byrne (Gold Cord) (164)**

**Loc:** Sec. 30, (30-33E), Keller dist. **Owner:** Silver Creek Mining & Milling Co. (1918-1922). Byrne Mining & Smelting Co. (1907). Silver Creek Mining & Milling Co. (1908). Gold Cord Mining & Milling Co. (1918). **Ore:** Silver, gold. **Ref:** 97, 1907, p. 474. 98, 1918-1925. 114, no. 5, 1909, p. 69. 116, no. 4, 1908, p. 91.

**Cabin**

(see Advance)

**California (182)**

(see under copper)

**California (Apollo) (57)**

(see under gold)

**Chance (112)**

**Loc:** Near center W½ sec. 26, (32-36E), on hillside just W. of Covada Lk. **Prop:** 1 claim. **Ore:** Silver, gold. **Ore min:** Pyrite. **Deposit:** 8-in. quartz vein in granodiorite. **Dev:** 22-ft. shaft, 8-ft. shaft. **Assays:** 0.02 oz. Au, 1.60 oz. Ag. **Ref:** 122, p. 164. 163, p. 60.

**Cherokee Strip (97)**

**Loc:** SW¼ sec. 31, (32-37E), 1½ mi. E. of Covada. **Prop:** 1 claim. **Owner:** L. G. Curry (1912). **Ore:** Silver, gold. **Deposit:** Vein cutting quartzite. **Dev:** 12-ft. shaft. **Assays:** Av. sample of vein assayed tr. Au, 0.20 oz. Ag. **Ref:** 163, p. 65.

**Chief**

(see Big Chief under lead)

**Chief Barnaby (63)**

**Loc:** Sec. 4, (34-35E) and sec. 35, (35-35E), near head of Chief Barnaby Cr., Covada dist. **Access:** 17 mi. by road from railroad at Kettle Falls. **Prop:** 10 claims and 300 acres of deeded land. **Owner:** Chief Barnaby Mines, Inc., Spokane, Wash. (1943). **Ore:** Silver, lead, zinc. **Ore min:** Sphalerite, galena, pyrite. **Deposit:** A few ore lenses along a persistent fault in argillite, limestone, and granite. **Dev:** 395-ft. adit, 35-ft. shaft. **Assays:** Owner states that a few tons of ore near the portal of the adit showed 205 oz. Ag, 21% Pb. **Ref:** 157. 158.

**Clay (171)**

(see under copper)

**Colorado (113)**

(see under lead)

**Comstock (2)**

(see under copper)

**Congress (114)**

(see under nickel)

**Consolidated Mines and Smelting Co., Ltd.**

(see under copper)

**Copper Key (12)**

(see under copper)

**Copper Prince**

**Loc:** Keller dist. **Owner:** Keller Copper Co. (1918). **Ore:** Silver, lead, zinc, copper. **Dev:** 120-ft. upper adit, 80-ft. lower adit. **Assays:** Ore on upper dump: 1.4% Cu, 6 oz. Ag. **Ref:** 112, p. 186.

**Cougar (174)**

(see under copper)

**Cuba**

(see Big Lake under lead)

**Curlew**

(see under lead)

**Cyprus**

(see under gold)

**Dan Patch (69)**

**Loc:** Near center SW¼ sec. 13, (32-36E), 3½ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** L. G. Curry (1912). Dan Patch Mining Co. (1909). **Ore:** Silver, lead, zinc, gold. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** 3 quartz veins cutting quartzite and slate. One vein 16 in. wide and another 2 to 8 in. wide. **Dev:** 54-ft. adit, 30-ft. shaft, several open cuts. **Assays:** 16-in. vein: 0.04 oz. Au, 10.15 oz. Ag. **Prod:** 1909. **Ref:** 46, p. 133. 122, pp. 174-175. 163, p. 71.

**Day Mines**

(see under gold)

**Delaware**

(see Burlington and Delaware under lead)

**Dewey (136)**

**Loc:** Sec. 2, (31-36E), 1½ mi. SW. of Covada post office. **Prop:** 1 claim. **Owner:** J. C. Seaman (1912). **Ore:** Silver. **Deposit:** 8-in. vein in quartzite and slate. **Dev:** 25-ft. adit in rock and 100-ft. adit in gravel and sand. **Assays:** Av. sample from 25-ft. adit assayed no Au, tr. Ag. **Ref:** 163, pp. 79-80.

**Drummond (115)**

(see under lead)

**East San Poil (30)**

(see under gold)

**El Caliph (31)**

(see under gold)

**Emma**

(see Standard and Emma under gold)

**Etta (80)**

(see under lead)

**Eureka**

(see Quilp under gold)

**Faithful Surprise**

(see Morning Star under gold)

**Five Hundred (150)**

**Loc:** NW¼ sec. 14, (31-36E), Covada dist. **Ore:** Silver, gold. **Deposit:** 4½-ft. vein of quartz-argillite breccia. **Ref:** 122, p. 176.

**Flag Hill (50)**

(see under gold)

**Florence**

**Loc:** 8 mi. SW. of Inchelium, Covada dist. **Ore:** Silver. **Gangue:** Quartz. **Prod:** 1933. **Ref:** 97, 1935, p. 352.

**Galena (66)**

(see also Gwin)

**Loc:** NW¼ sec. 11, (32-36E), Covada dist. **Prop:** 1 claim of the Gwin property. **Owner:** Gwin Mining Co. (1913-1922). **Ore:** Silver, gold, copper, lead. **Ore min:** Galena, pyrite. **Deposit:** 3-ft. quartz vein. **Dev:** 17-ft. shaft, 100-ft. crosscut, 150-ft. crosscut. **Ref:** 98, 1918, p. 1448. 112, p. 181. 122, pp. 173-174. 163, pp. 81-83.

**Gold Cord**

(see Byrne)

**Gold Crown**

**Loc:** Keller dist. **Owner:** Bridge Creek Mining Co. (1907). **Ore:** Silver, lead, copper, gold. **Ref:** 116, no. 6, 1907, p. 32; no. 9, 1907, p. 18; no. 10, 1907, p. 19.

**Gold Hill (Lost Mine)**

**Loc:** Keller dist. **Owner:** Columbia Silver Mining Co. (1924-1926). **Ore:** Silver. **Prod:** 1926. **Ref:** 97, 1926, p. 466. 98, 1922-1926.

**Gold Twenty (65)**

(see under gold)

**Golden Cord (178)**

(see also Consolidated Mines and Smelting Co., Ltd. under copper)

**Loc:** SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, (30-33E), Keller dist. **Elev:** 2,800 ft. **Access:** 6 mi. from Keller up Silver Cr. road. **Prop:** 3 patented claims: Golden Cord, Black Prince, Silver Gulch. **Owner:** Consolidated Mines and Smelting Co., Ltd. (1937-1951). Golden Cord Mining Co. (1915). Blue Ledge Mining & Milling Co. (1917). Nineteen-Nineteen M. & M. Co. (1919-1922). Silver Copper Mining & Milling Co. (1922-1926). **Ore:** Silver, copper, lead, zinc. **Ore min:** Chalcopyrite, sphalerite, galena, pyrite. **Gangue:** Quartz, epidote, garnet. **Deposit:** Silicified schist cut by porphyry. Ore occurs as pockets and sparse disseminations in small quartz veinlets. **Dev:** 2 adits, one 125 ft. long, another 400 ft. long with a 100-ft. crosscut. **Assays:** Rich ore not found below comparatively shallow depth. Smelter shipments ran 2% to 6.1% Cu, 2.4 to 64.2 oz. Ag. Ore from raise in long adit said to run \$14 per ton. **Prod:** Has produced. **Ref:** 98, 1920-1926. 112, pp. 169, 180, 202. 122, pp. 132-133. 158.

**Golden Eagle (19)**

(see under gold)

**Golden Harvest (56)**

(see under gold)

**Golden Valley**

(see Valley under gold)

**Good Ore (77)**

**Loc:** SE $\frac{1}{4}$  sec. 22, (32-36E), 2 $\frac{1}{2}$  mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** G. E. Terpening (1912). **Ore:** Silver, lead, gold. **Ore min:** Galena, pyrite. **Deposit:** A 6- to 10-in. quartz vein in granodiorite traceable for at least 100 ft. Vein irregularly banded with small amounts of ore minerals. **Dev:** 140-ft. crosscut, 10-ft. shaft, several open cuts and short adits. **Assays:** Assays said to be on samples of the Good Ore show 0.6 to 4.06 oz. Au, 9 to 89 oz. Ag. **Ref:** 122, pp. 158-159. 163, pp. 69-70.

**Grandview (132)**

(see under lead)

**Gray (168)**

**Loc:** Sec. 6, (29-34E). **Access:** 7 mi. from Keller by road. **Prop:** 3 claims. **Owner:** Mr. Gray, Wilbur, Wash. **Ore:** Silver, gold, copper. **Deposit:** Said to be an 8-in. vein exposed for 600 ft. **Dev:** 600-ft. adit, 50-ft. shaft, 72-ft. shaft. **Assays:** Ore said to av. \$8 per ton. **Prod:** Reportedly produced 140 tons of ore prior to 1940. **Ref:** 28, pp. 47-52.

**Greasy Run (137)**

(see under lead)

**Great Eastern (70)**

(see under lead)

**Great Northern (159)**

**Loc:** Near N. line SE $\frac{1}{4}$  sec. 13, (30-32E), Keller dist. **Ore:** Silver, lead, zinc. **Ore min:** Galena, sphalerite. **Deposit:** 1-ft. quartz vein liberally sprinkled with galena and sphalerite cuts moderately sheared and sericitized granite. **Dev:** Open cuts. **Assays:** Samples from the vein reportedly assay 55 to 170 oz. Ag. **Ref:** 46, p. 155. 122, p. 127.

**Great Scott (71)**

(see under lead)

**Great Western (161)**

**Loc:** Sec. 18, (30-33E),  $\frac{1}{4}$  mi. W. of Sanpoil R. **Elev:** 500 ft. above Sanpoil R. **Access:** 4 mi. N. of Keller by road. **Ore:** Silver, molybdenum. **Ore min:** Silver-bearing sulfides, molybdenite. **Deposit:** Ore occurs in small fissures in quartzite near intrusive granite. One vein is 12 to 18 in. wide. A small vein is exposed farther down the hill. **Dev:** Shallow winze and open cut. **Assays:** Samples across the vein in shallow upper workings reportedly assayed 50 oz. Ag. **Ref:** 129, pp. 217-218.

**Gwin (Hall Creek) (67)**

(see also Galena)

**Loc:** NW $\frac{1}{4}$  sec. 11, (32-36E). **Elev:** 2,000 ft to 2,300 ft. **Access:** 4 mi. W. from Inchelium on Twin Lakes road, thence  $\frac{1}{2}$  mi. N. **Prop:** 10 claims: Gwin, Sunnyside, Homestead, Wizard, Big Pet, Missing Link, Hall Creek, Galena, Iron Cap, B. C. Fraction. **Owner:** Ed Hodson (1943). Gwin Mining Co. (1913-1922). Hall Creek Mining Co. (1913-1926). **Ore:** Silver, copper, gold, lead, tungsten. **Ore min:** Tetrahedrite, pyrite, galena, wolframite, arsenopyrite, tennantite or enargite, malachite, azurite. **Deposit:** Quartz veins up to 4 ft. wide parallel to the bedding in quartzites and argillites. **Dev:** 750-ft. adit, inclined shaft, numerous prospect holes and open cuts. **Assays:** Company records show av. 3% Cu, 27.7 oz. Ag, 0.049 oz. Au. **Prod:** Mostly silver but reportedly some tungsten during first world war. **Ref:** 37, pp. 17-19. 97, 1913, p. 797; 1915, p. 569. 98, 1918-1926. 112, p. 181. 122, pp. 173-174. 163, pp. 81-83.

**Hall Creek**

(see Gwin)

**Handy Andy**

**Loc:** T. 30 N., R. 40 E. **Ore:** Silver. **Ref:** 58, p. 28.

**Hawkeye (13)**

(see under gold)

**High Line**

(see under gold)

**Hope**

(see Black Tail under gold)

**I. X. L. (138)**

(see under lead)

**Iconoclast (183)**

(see under copper)

**Ida May (32)**

(see under gold)

**Idora (139)**

(see under lead)

**Illinois (184)**

(see under copper)

**Imperator**

(see Quilp under gold)

**Insurgent (20)**

(see under gold)

**Iron Creek**

(see Shamrock under nickel)

**Iron Mask (33)**

(see under gold)

**Iron Monitor (51)**

(see under gold)



**Iron Mountain (60)**

**Loc:** Sec. 6, (35-34E), Republic dist. **Ore:** Silver, gold. **Prod:** Amount not known. **Ref:** 58, p. 34.

**Ivanhoe (Southern Cross) (149)**

**Loc:** N $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 6, (31-37E), Covada dist. **Elev:** 1,900 ft. **Owner:** Ivanhoe Mining Co. (1911). Southern Cross Mining Co. (1909). **Ore:** Silver. **Deposit:** 3 quartz veins in limy shale each av. 10 in. wide. **Dev:** 650-ft. crosscut adit. **Assays:** Veins appear to be barren but reported to assay fairly well in silver. **Prod:** Small trial shipment of silver ore in 1911. **Ref:** 97, 1911, p. 786. 122, p. 166.

**J. H. E. (72)**

(see under lead)

**Jaybird (98)**

(see under lead)

**Jenny (6)**

(see under gold)

**Jim Blaine Fraction (52)**

(see under gold)

**Juliet (81)**

(see under lead)

**Jumper (185)**

(see under copper)

**Juno (61)**

**Loc:** Sec. 6, (35-34E), on Iron Mtn. **Access:** 14 mi. SE. of Republic on Iron Mtn. road. **Prop:** 1 claim. **Ore:** Silver, lead, gold. **Ore min:** Arsenopyrite, galena, pyrite. **Deposit:** Quartz vein roughly follows the contact between limestone-lime shale series and diorite. **Ref:** 7, p. 201.

**Kangaroo (34)**

(see under gold)

**Kentucky Bell (116)**

(see under lead)

**Keystone (82)**

**Loc:** Near center E $\frac{1}{2}$  sec. 34, (32-36E). **Access:** 3 mi. from Covada up Stray Dog Canyon road. **Prop:** 1 claim of the 8-claim Keystone group. **Owner:** G. A. Mathews (1912). Keystone Mining Co. (1909-1915). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, native silver, pyrargyrite. **Gangue:** Quartz, calcite, gouge. **Deposit:** Shear zone in schist and carbonaceous shale. Zone 2 to 6 ft. wide. Breccia mineralized with pyrite, also mineralized quartz veinlets 1 to 4 in. wide. **Dev:** 550-ft. adit. **Assays:** Some veinlets said to carry as much as 4 oz. Au and 190 oz. Ag. **Ref:** 7, p. 195. 46, pp. 126-127. 122, p. 158. 163, p. 70.

**King Richard**

(see Meadow Creek under copper)

**King Solomon (140)**

(see under lead)

**Knob Hill (35)**

(see under gold)

**La Fleur**

(see Comstock, Walla Walla under copper)

**Lakeview Fraction (117)**

(see under lead)

**Lame Foot (Valley)**

(see Valley under gold)

**Lamefoot**

(see under iron)

**Lancaster (7)**

(see under copper)

**Last Chance (21)**

(see under gold)

**Last Chance (175)**

(see under copper)

**Laura S. (133)**

(see under lead)

**Laurier**

(see Talisman under copper)

**Little Cove (36)**

(see under gold)

**Little Jay (118)**

(see under lead)

**Little Tom**

(see Juliet under lead)

**Lone Pine (37)**

(see under gold)

**Lone Star and Washington (1)**

(see under copper)

**Longstreet (119)**

**Loc:** NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 36, (32-36E). Adjoins Robert E. Lee on the N. **Elev:** 2,100 to 2,200 ft. **Access:** 5 mi. S. of Inchelium by road. 36 mi. to railroad at Kettle Falls. **Prop:** 2 patented claims: Longstreet, Fidalgo; 4 unpatented claims. **Owner:** H. B. Rosenbaum, Inchelium, Wash. (1943-1949). Henry Garrett (1892-1912). **Ore:** Silver, antimony, lead, zinc, copper, gold. **Ore min:** Pyrite, stibnite, argentite, galena, tetrahedrite, sphalerite, chalcopryrite. **Gangue:** Quartz. **Deposit:** Adjacent to an alaskite dike there is a zone of mineralized silicified granodiorite breccia 8 to 30 ft. wide. Quartz and ore minerals cement the breccia. Stibnite occurs as small streaks and scattered low-grade lenses in breccia zone as much as 150 ft. wide. **Dev:** 400-ft. crosscut adit, 80-ft. adit, and large irregular open cut. **Assays:** One shipment of handpicked ore said to have yielded 25% Sb. Sample from a lens 8 in. wide showed 4.61% Sb, and another lens 4 in. wide showed 19.57% Sb. 3 cars ore reported to have returned 53 to 57 oz. Ag, \$7.00 Au per ton. **Prod:** Some small shipments, one of 2,880 lb. yielded 207 oz. Ag. 120 tons ore known production. **Ref:** 7, pp. 195-196. 97, 1920, p. 267. 105, 5/09, p. 647. 122, pp. 167-168. 129, p. 220. 132, pp. 68-71. 141, p. 50. 157. 158. 163, pp. 34, 67.

**Lost Mine**

(see Gold Hill)

**Lucile Dreyfus**

(see Morning Star under gold)

**Lucky Boy**

(see under lead)

**McJunkin (152)**

**Loc:** Near center NE $\frac{1}{4}$  sec. 27, (32-33E), 1 $\frac{1}{2}$  mi. NW. of Congress property, Keller dist. **Elev:** 3,500 ft. **Owner:** J. H. McJunkin (1913). **Ore:** Silver, lead, zinc, nickel. **Ore min:** Sphalerite, galena, pyrite, nickel carbonate or silicate. **Gangue:** Quartz, calcite, breccia. **Deposit:** 4-ft. mineralized breccia zone separating porphyry from limestone and serpentine. Breccia replaced in part by ore minerals. **Dev:** 45-ft. adit from which a 15-ft. crosscut has been driven. **Assays:** One of the larger bunches of ore from the breccia zone assayed 23.36 oz. Ag, 7.7% Pb, and contained considerable Zn. **Ref:** 46, p. 152. 122, pp. 136-137.

**Mable T. (153)**

(see under lead)

**Malachite (179)**

**Loc:** Sec. 35, (30-33E), on slope N. of Silver Cr. **Owner:** Inspiration Silver Mining Co. (1930). **Ore:** Silver, copper. **Ore min:** Malachite. **Deposit:** Small mass of schistose argillite stained green with copper carbonate said to contain pockets of oxidized ore rich in silver to depths of 30 ft. **Dev:** 2 adits failed to strike ore. **Ref:** 105, 1/23/04, p. 70. 106, 4/3/30. 122, pp. 133-134.

**Mammoth (22)**

(see under gold)

**Manila (173)**

(see under copper)

**Mayflower (141)**

(see under lead)

**Meadow Creek (172)**

(see under copper)

**Messenger (120)**

(see under lead)

**Meteor (83)**

**Loc:** Near SW. cor. sec. 33, (32-36E). **Elev:** 2,900 to 3,100 ft. **Access:** 3 mi. S. of Meteor by road. **Prop:** 4 patented claims: Peoria, Ohio Fraction, Meteor, Comet. **Owner:** W. D. Chamberlain, Spokane, Wash. (1949). Meteor Mining Co. (1909-1918). **Ore:** Silver, lead, gold, copper, zinc. **Ore min:** Pyrite, galena, sphalerite, rhodochrosite, chalcopryrite, cerargyrite, pyrargyrite, arsenopyrite, argentite, tetrahedrite, native silver. **Gangue:** Quartz, gouge. **Deposit:** Quartz vein from 1 in. to 1½ ft. wide in a shear zone in metamorphic rocks. **Dev:** 160-ft. inclined shaft, 700-ft. crosscut from which a 125-ft. drift has been driven. **Assays:** Smelter certificates on ore shipped show 0.6% Pb, 0.06 oz. Au, 65.84 oz. Ag per ton on 17-ton lot. **Prod:** 20 tons of ore with total gross value of \$1,000 by 1918. **Ref:** 7, pp. 191-193. 46, pp. 139-141. 112, p. 191. 114, no. 5, 1909, p. 72. 122, pp. 155-156. 129, p. 220. 158. 163, p. 84.

**Midnight**

**Loc:** Keller dist. **Owner:** Bridge Creek Mining Co. (1907). **Ore:** Silver, lead, copper, gold. **Ref:** 116, no. 6, 1907, p. 32; no. 9, 1907, p. 18; no. 10, 1907, p. 19.

**Mineral Hill**

(see Morning Star under gold)

**Mono (160)**

(see under zinc)

**Montana (84)**

**Loc:** Near center sec. 28, (32-36E), 3 mi. NW. of Covada. **Prop:** 1 claim. **Owner:** J. P. Reed, Inchelium, Wash. (1941). **Ore:** Silver, lead, zinc, gold. **Ore min:** Galena, sphalerite, pyrite, pyrargyrite. **Gangue:** Quartz, calcite. **Deposit:** Mineralized quartz vein at least 1 ft. wide in granodiorite. **Dev:** 3 shafts said to range from 20 to 90 ft. **Assays:** Samples said to assay as much as 0.16 oz. Au, 224.8 oz. Ag, 47.6% Pb. **Prod:** Has produced. **Ref:** 46, p. 125. 97, 1919, p. 492. 104, 5/30/37, p. 29. 122, p. 157. 158. 163, p. 76.

**Morning**

(see under gold)

**Morning Glory (38)**

(see under gold)

**Morning Star (4)**

(see under gold)

**Mount Tolman (165)**

(see under copper)

**Mountain Lion (39)**

(see under gold)

**Muldoon**

(see under gold)

**New York (85)**

(see under lead)

**North San Poil Fraction (40)**

(see under gold)

**Northern Light (99)**

**Loc:** SE¼ sec. 31, (32-37E), 1¼ mi. E. of Covada. **Prop:** 1 claim. **Ore:** Silver, gold. **Gangue:** Quartz. **Deposit:** Sheared silicified argillite traversed by many small veinlets of crushed iron-stained quartz. **Dev:** 38-ft. adit, 10-ft. shaft. **Assays:** Av. sample assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 167. 163, pp. 65-66.

**Number Seven**

**Loc:** Keller dist. **Ore:** Silver, lead, copper, gold. **Ref:** 116, no. 6, 1907, p. 32; no. 9, 1907, p. 18; no. 10, 1907, p. 19.

**Ohio (121)**

(see under lead)

**Old Gold**

(see Morning Glory under gold)

**Old Nell (122)**

(see under antimony)

**Oom Paul (86)**

(see under lead)

**Ophir (162)**

(see under lead)

**Oregon (154)**

**Loc:** SW¼ sec. 1, (31-34E), Keller dist. **Ore:** Silver, lead. **Ref:** 114, no. 5, 1909, p. 69.

**Oregon**

(see Illinois under copper)

**Orion (100)**

**Loc:** Just W. of the center of sec. 31, (32-37E), Covada dist. **Access:** ½ mi. W. of road by which it is 28 mi. to railroad at Kettle Falls. **Prop:** 8 claims. **Owner:** F. V. Messenger, Inchelium, Wash. (1941). Orion Mining Co. (1909). **Ore:** Silver, gold, tungsten. **Ore min:** Pyrite, scheelite. **Deposit:** A number of quartz veins from a fraction of an inch to 4 ft. cut sheared slates and argillites. **Dev:** 2 adits, one 500 ft. and the other 1,200 ft. long. Shorter adit is caved. **Assays:** Scheelite less than 1%. **Ref:** 37, p. 21. 114, no. 5, 1909, p. 74. 122, pp. 166-167. 158.

**Pacific Mutual**

(see Addison under copper)

**Panama (8)**

(see under gold)

**Patterson**

(see Jennie under gold)

**Paul and Brimstone**

(see under gold)

**Pearl (41)**

(see under gold)

**Perry (123)**

(see under gold)

**Pilgrim (142)**

(see under lead)

**Pin Money (14)**

(see under gold)

**Plymouth Rock (143)**

(see under lead)

**Polaris (124)**

(see under lead)

**Polepick (186)**

(see under copper)

**Poor Man's Hope (181)**

(see under lead)

**Porcupine**

**Loc:** Republic dist. **Ore:** Silver. **Prod:** 1934. **Ref:** 97, 1935, p. 353.

**Prince Henry (151)**

**Loc:** NW¼ sec. 14, (31-36E). **Ore:** Silver. **Gangue:** Quartz. **Deposit:** 4-ft. vein of crushed iron-stained quartz enclosed by granodiorite. **Ref:** 122, p. 176.

**Princess Maude (53)**

(see under gold)

**Quilp (23)**

(see under gold)

**Rattler (73)**

**Loc:** Sec. 24, (32-36E), Covada dist. **Prop:** 1 claim. **Ore:** Silver, gold. **Deposit:** 3-ft. vein of crushed quartz in quartzite. **Dev:** 95-ft. adit. **Assays:** Av. sample assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 172. 163, p. 73.

**Rattlesnake (101)**

(see under lead)

**Rebate (15)**

(see under gold)

**Red Chief (95)**

(see under lead)

**Reliance (125)**

**Loc:** Near SE. cor. sec. 35, (32-36E), just N. of Greasy Run prospect, Covada dist. **Prop:** 1 claim. **Ore:** Silver, gold. **Deposit:** 8-in. quartz vein in schistose quartzite near granodiorite contact. **Dev:** Shaft. **Assays:** Av. sample from discovery shaft assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 164. 163, p. 61.

**Ren Rice (74)**

(see under lead)

**Republic (54)**

(see under gold)

**Reserve (96)**

**Loc:** SE¼ sec. 32, (32-36E), 3 mi. W. of Covada post office. **Prop:** 1 claim. **Owner:** L. G. Curry (1912). **Ore:** Silver, lead, gold. **Ore min:** Galena, pyrite. **Gangue:** Quartz. **Deposit:** Vein consists of 7 ft. of crushed quartzite and 3 ft. of white quartz containing galena and pyrite. **Dev:** 48-ft. shaft with 75-ft. drift at bottom. **Assays:** Av. sample from shaft assayed 0.04 oz. Au, 7.80 oz. Ag. **Ref:** 122, p. 156. 158. 163, pp. 75-76.

**Robert E. Lee (126)**

(see under antimony)

**Romulus (87)**

(see under lead)

**Rosario (102)**

(see under gold)

**Rover Bonanza (166)**

**Loc:** Near center NE¼ sec. 30, (30-33E), on narrow ridge separating Jack and Meadow Creeks. **Prop:** Several claims. **Ore:** Silver, gold, lead, zinc. **Ore min:** Sphalerite, galena, pyrite, arsenopyrite. **Deposit:** Numerous small quartz veins in sheared sericitized granite. Most persistent vein is 3 to 18 in. wide. **Dev:** 150-ft. adit, 120-ft. adit, 400-ft. adit, 200-ft. adit, several open cuts. **Assays:** A sample representing a cross section of the persistent vein assayed 0.09 oz. Au, 52.9 oz. Ag. Considerable percentages of lead and zinc also present. **Ref:** 46, pp. 148-149. 122, pp. 123-125.

**Royal Ann (127)**

(see under lead)

**St. Patrick (88)**

(see under lead)

**St. Paul (75)**

**Loc:** Sec. 13, (32-36E), 4 mi. NE. of Covada post office. **Prop:** 1 claim. **Ore:** Silver, gold. **Ore min:** Pyrite. **Deposit:** 1-ft. quartz vein in 5- to 6-ft. shear zone in quartzite. Zone somewhat mineralized with pyrite. **Dev:** 10-ft. shaft, open cut. **Assays:** Av. sample of the quartz vein assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, pp. 174-175. 163, p. 72.

**San Poil (42)**

(see under gold)

**San Poil Fraction (43)**

(see under gold)

**San Poil Monitor**

(see Meadow Creek under copper)

**Schminski (188)**

(see under molybdenum)

**Seattle (44)**

(see under gold)

**Several (89)**

(see under lead)

**Shamrock (158)**

(see under nickel)

**Shonee**

(see under copper)

**Silver Bell (103)**

(see under lead)

**Silver Crown**

**Loc:** Keller dist. **Owner:** Silver Crown Mining Co. (1909). **Ore:** Silver, gold. **Ref:** 114, no. 5, 1909, p. 71.

**Silver Crown No. 2 (144)**

**Loc:** Near NE. cor. sec. 1, (31-36E), just E. of and parallel to Silver Crown No. 3, Covada dist. **Prop:** 1 claim. **Owner:** Mr. Howe (1912). **Ore:** Silver, gold. **Ore min:** Pyrite, unidentified sulfides. **Deposit:** Quartz vein in schistose quartzite and limy shale, 18 in. wide at surface, 3 ft. wide on 50-ft. level, and wider on 100-ft. level. **Dev:** 112-ft. shaft with drifts on 50- and 100-ft. levels, 125-ft. crosscut, open cuts, pits. **Assays:** 2 samples from 50-ft. level; one assayed 0.06 oz. Au, 14.94 oz. Ag, the other 0.04 oz. Au, 16.10 oz. Ag. **Prod:** 1,935 lb. in 1905 netted \$168. **Ref:** 122, p. 166. 129, p. 220. 163, pp. 34, 57-58.

**Silver Crown No. 3 (145)**

(see under lead)

**Silver Hill (169)**

(see under copper)

**Silver King (170)**

**Loc:** Sec. 6, (29-34E), Keller dist. **Ore:** Silver, lead, copper. **Ref:** 114, no. 5, 1909, p. 69.

**Silver Leaf (104)**

**Loc:** SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30, (32-37E), on S. slope of Rattlesnake Mtn., Covada dist. **Elev:** 1,825 ft. **Access:** 6 $\frac{1}{2}$  mi. S. of Inchelium by road and trail. **Prop:** 2 unpatented claims: Tungsten Nos. 1 and 2. **Owner:** Hal Hightower, Covada, Wash. (1942-1949). Held-Roberts Mining Co. (1913). **Ore:** Silver, lead, zinc, tungsten, antimony. **Ore min:** Tetrahedrite, pyrite, chalcoppyrite, sphalerite, galena, stibnite, scheelite, malachite, azurite, native silver, ruby silver, jamesonite, wolframite. **Deposit:** Mineralized quartz lenses in a shear zone 50 ft. wide in limestone, schist, and argillite, 100 to 150 ft. from margin of granodiorite stock. **Dev:** 200-ft. adit, 40-ft. shaft, 50-ft. adit, several open cuts. **Assays:** 11 tons of hand-sorted ore yielded 3.6% Pb, 2.2% Zn, 180 oz. Ag. A mill test on 3 tons of ore showed 2 $\frac{1}{8}$ % WO<sub>3</sub>. **Prod:** 1911, 1912, 1915, 1916, 1935. Produced small amount of tungsten in 1915. **Ref:** 7, p. 197. 37, pp. 19-21. 46, pp. 117-118. 97, 1911, 1912, 1915, 1916, 1935. 105, 1913, p. 557; 1916, p. 325. 122, pp. 170-171. 129, p. 220. 130, p. 90. 132, pp. 71-74. 158, 163, pp. 34, 80-81.

**Silver Pick**

**Loc:** Keller dist. **Owner:** Bridge Creek Mining Co. (1907). **Ore:** Silver, lead, copper, gold. **Ref:** 116, no. 6, 1907, p. 32; no. 9, 1907, p. 18; no. 10, 1907, p. 19.

**Silver Queen (134)**

(see under lead)

**Silver Spar (90)**

**Loc:** NE. cor. sec. 27, (32-36E), nearly 2 mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** G. E. Terpening (1912). **Ore:** Silver (?). **Deposit:** 18-in. vein in granodiorite consists of quartz and calcite. **Dev:** 2 shafts, one 20 ft. deep. **Ref:** 163, p. 69.

**Silver Spar (128)**

(see under lead)

**Silver Tip (62)**

**Loc:** Sec. 6, (35-34E), on Iron Mtn. **Access:** 14 mi. SE. of Republic on Iron Mtn. road. **Prop:** 1 claim. **Owner:** Silver Tip Consolidated Mining & Smelting Co. (1908). **Ore:** Silver, lead, gold. **Ore min:** Pyrite, arsenopyrite, galena. **Deposit:** Quartz vein roughly parallel to limestone-lime shale series and diorite contact. **Ref:** 7, p. 201. 116, no. 4, 1908, p. 91.

**Snowstorm (45)**

(see under gold)

**Snowstorm (White Swan) (91)**

(see under lead)

**South Penn (16)**

(see under gold)

**Southern Cross**

(see Ivanhoe)

**Southern Republic**

(see Princess Maude under gold)

**Standard and Emma (55)**

(see under gold)

**Stemwinder**

**Loc:** Covada dist. **Ore:** Silver, lead. **Prod:** 1939. **Ref:** 97, 1940, p. 477. 158.

**Stray Dog (92)**

**Loc:** SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, (32-36E). **Elev:** 2,250 to 2,360 ft. **Access:** 2 mi. NW. of Covada post office by road. 36 mi. by

road to railroad at Kettle Falls. **Prop:** 2 unpatented claims. **Owner:** Lee Peone, Inchelium, Wash. (1941). Stray Dog Mining Co. (1909). **Ore:** Silver, lead, copper, zinc, gold. **Ore min:** Pyrite, chalcoppyrite, sphalerite, galena, tetrahedrite, pyrrargyrite, argentite, arsenopyrite, native silver. **Gangue:** Quartz, calcite, talc. **Deposit:** Sparsely mineralized quartz vein from stringer to 2 ft. wide occupies a shear zone in quartz monzonite porphyry. **Dev:** Lower level: 260-ft. crosscut, 300-ft. drift, 75-ft. winze, 108-ft. upraise. Middle level: 100 ft. of workings. Upper level: 50 ft. of workings. 100-ft shaft on ridge top. **Assays:** One 20-ton lot assayed 0.3 oz. Au, 5 oz. Ag; another 20-ton lot assayed 0.6 oz. Au, 66 oz. Ag. **Prod:** 2 shipments of 20 tons each reported prior to 1910. **Ref:** 7, p. 193. 46, pp. 123-124. 100, vol. 11, 1903, p. 35. 114, no. 5, 1909, p. 74. 122, pp. 159-160. 129, p. 220. 158, 163, pp. 34, 74.

**Summit (129)**

(see under lead)

**Summit (167)**

(see under zinc)

**Sunset (146)**

(see under lead)

**Sunshine (130)**

**Loc:** SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36, (32-36E), a little less than  $\frac{1}{2}$  mi. E. of Covada post office. **Prop:** 1 claim. **Ore:** Silver. **Deposit:** 4-ft. quartz vein in granodiorite. 2 ft. of vein matter at another place is exposed. **Dev:** Two 10-ft. shafts and a 10-ft. open cut. **Assays:** Av. sample from discovery showed no Au, tr. Ag. **Ref:** 122, p. 167. 163, pp. 52-53.

**Surprise (46)**

(see under gold)

**Syndicate (93)**

(see under lead)

**Syracuse (147)**

**Loc:** Sec. 12, (31-36E), 2 mi. SW. of Covada post office. **Prop:** 1 claim. **Ore:** Silver, gold. **Gangue:** Crushed country rock, quartz. **Deposit:** 6-ft. vein in quartzite and slate composed of crushed country rock and quartz. **Dev:** 30-ft. shaft. **Assays:** Av. sample of the vein assayed tr. Au, 0.20 oz. Ag. **Ref:** 163, p. 80.

**Talisman (5)**

(see under copper)

**Tom Thumb (17)**

(see under gold)

**Trade Dollar (47)**

(see under gold)

**Truax (78)**

(see under gold)

**U. S. (155)**

(see under lead)

**Umatilla (187)**

(see under copper)

**V Fraction (24)**

(see under gold)

**Valley (11)**

(see under gold)

**Veda W.**

**Loc:** Keller dist. **Owner:** Bridge Creek Mining Co. (1907). **Ore:** Silver, lead, copper, gold. **Ref:** 116, no. 6, 1907, p. 32; no. 9, 1907, p. 18; no. 10, 1907, p. 19.

**Vesuvius (180)**

**Loc:** Sec. 35, (30-33E), Keller dist. **Owner:** Lew Wilmont (1913). **Ore:** Silver. **Ore min:** Pyrite. **Gangue:** Quartz, altered granite. **Deposit:** Lode 6 ft. wide in granite composed of vein quartz and altered granite contains good-sized bunches of pyrite. **Dev:** 140-ft. adit, 60-ft. inclined shaft. **Ref:** 58, p. 71. 122, p. 134.

**Victor (76)**

**Loc:** Sec. 13, (32-36E), 4 mi. NE. of Covada post office. **Prop:** 1 claim, part of Deer Trail property. **Ore:** Silver, gold. **Ore min:** Pyrite. **Deposit:** Vein in quartzite composed of yellowish quartz in a shear zone 5 to 6 ft. wide mineralized with pyrite. **Dev:** 10-ft. adit, 8-ft. shaft, open cuts. **Assays:** Av. sample assayed 0.01 oz. Au, 0.50 oz. Ag. **Ref:** 122, pp. 174-175. 163, p. 72.

**Virginia**

(see Morning Star under gold)

**Walla Walla (La Fleur) (3)**

(see under copper)

**Washington**

(see Lone Star and Washington under copper)

**Welcome**

(see Boston & New York)

**White Horse**

**Loc:** Keller dist. **Owner:** Silver Crown Mining Co. (1909). **Ore:** Silver, gold. **Ref:** 114, no. 5, 1909, p. 31.

**White Rose (94)**

(see under lead)

**White Swan**

(see Snowstorm under lead)

**White Tail (131)**

(see under lead)

**Willmot**

(see under copper)

**Yellowstone (105)**

(see under lead)

**Zalla M (10)**

**Loc:** W $\frac{1}{2}$  sec. 30, (39-32E), a few hundred yd. E. of the Ferry-Okanogan County boundary line, Sheridan dist. **Elev:** 4,500 to 5,000 ft. **Access:** 13 mi. NW. of Republic by road. **Prop:** 5 patented claims: Zalla M, Fannie Woodard, Kittie Clide, Discovery, Grandview. **Owner:** E. K. Brown, Ellensburg, and A. R. Jordin, Liberty, Wash. (1936). Zalla Mining Co. (1915). **Ore:** Silver, copper, gold. **Ore min:** Chalcopryrite, pyrite. **Gangue:** Quartz, calcite, fluorite. **Deposit:** Well-defined quartz vein 1 to 6 ft. wide filling an irregular fracture in phonolite. Vein sparsely mineralized and low grade except in zone of secondary enrichment from surface to depth of 150 ft. **Dev:** About 1,000 ft. of workings on 2 levels. **Assays:** Smelter certificates on 30-ton lots of hand-sorted ore showed 86 to 118 oz. Ag, 0.17 to 0.25 oz. Au, 1.0% to 1.2% Cu. **Prod:** \$40,000 to 1903, ore from dump shipped in 1935. **Ref:** 58, p. 74. 129, pp. 198-200.

**RANT COUNTY****Black-Rosauer (1)**

(probably the same property as Electric City, described under molybdenum)

**Loc:** Near SW. cor. sec. 14, (28-30E), in floor of Grand Coulee. **Prop:** 4 claims. **Owner:** Black-Rosauer Mines, Inc. (1937). **Ore:** Silver, gold; reportedly bismuth and molybdenum.

**Ore min:** Pyrite, galena (?), molybdenite. **Deposit:** A 2- to 5-ft. quartz vein along a shear zone in granite. **Dev:** 85-ft. inclined shaft, 30-ft. adit. **Assays:** Said to assay \$13.45 Ag, tr. Au. **Prod:** Small production reported in 1937. **Ref:** 58, p. 8. 158.

**Electric City (2)**

(see under molybdenum)

**Hope No. 1 (3)**

**Loc:** Near SW. cor. sec. 14, (28-30E), in floor of Grand Coulee. **Owner:** Mr. Gibbs (1938). **Ore:** Silver, gold. **Deposit:** A 3-ft. pegmatite dike in which are no visible ore minerals. **Dev:** 30-ft. adit. **Assays:** Said to carry silver and gold. **Ref:** 158.

**Silver Queen (4)**

**Loc:** Near SW. cor. sec. 14, (28-30E), in floor of Grand Coulee. **Owner:** Messrs. Lundstrom and Palmer (1938). **Ore:** Silver. **Ore min:** Pyrite. **Deposit:** Quartz vein in granite. **Dev:** 30-ft. adit with 22-ft. shaft at portal. **Assays:** Said to assay \$7 to \$8 Ag. **Ref:** 158.

**KING COUNTY****Aces Up (35)**

**Loc:** SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30, (25-11E), 4,200 ft. SE. of the Cleopatra mine. **Elev:** 2,500 to 2,800 ft. **Access:** 7 $\frac{1}{2}$  mi. up Miller R. road from the old Stevens Pass highway, thence  $\frac{1}{2}$  mi. by trail. **Prop:** One of 23 claims in the Cleopatra group. **Owner:** E. C. Maloney, Skykomish, Wash., leasing to the Cascade Mining Co. (1949—). **Ore:** Silver, lead, copper, zinc, gold. **Ore min:** Pyrite, arsenopyrite, sphalerite, chalcopryrite, argentiferous galena, jamesonite. **Gangue:** Quartz, calcite. **Deposit:** Joints in granodiorite have been mineralized over a width of a few in. to 2 ft. **Dev:** 4 adits, 415 ft., 175 ft., 20 ft., and 300 ft. long. **Assays:** Occasional streaks of ore 6 in. wide carry 20 oz. Ag. **Prod:** 500-lb. shipment to Tacoma smelter. **Ref:** 63, p. 38. 132, pp. 79-83. 133, p. 29. 158.

**Anderson (1)**

(see under iron)

**Annie (49)**

(see under copper)

**Apex (16)**

(see under gold)

**Baring**

(see Anderson under iron)

**Bear Basin (39)**

**Loc:** SE $\frac{1}{4}$  sec. 14, NE $\frac{1}{4}$  sec. 23, SW $\frac{1}{4}$  sec. 13, and NW $\frac{1}{4}$  sec. 24, (25-10E), Buena Vista dist. **Elev:** 4,100 to 5,000 ft. **Access:** Road from Lennox Cr. to Bear Cr. 1 $\frac{1}{2}$  mi. by trail and 29 mi. by road to railroad at North Bend. **Prop:** 25 unpatented claims. **Owner:** Bear Basin Mining Co., Bremerton, Wash. (1952—). Snoqualmie Mining Co. (1933). Cascade Mines, Inc. **Ore:** Silver, lead, zinc, antimony, copper, gold. **Ore min:** Pyrite, arsenopyrite, freibergite, jamesonite, stibnite, andorite, stannite, sphalerite, galena, molybdenite. **Gangue:** Mangandolomite, quartz. **Deposit:** Sericitized and mineralized granodiorite along fault zones. Zones pinch and swell from thin seams to 4 ft. in thickness. **Dev:** 8 adits and a winze totaling 2,165 ft. **Improv:** Bunkhouse, blacksmith shop, and a small powerhouse. Compressor, pelton wheel, 400 ft. of 8-in. pipe, and 3,000 ft. of  $\frac{3}{8}$ -in. cable (1947). **Assays:** A 2-ft. channel sample in the 420-ft. adit assayed 0.06 oz. Au, 16.90 oz. Ag, 0.13% Zn. **Ref:** 11-A, pp. 190-202. 132, pp. 83-87. 158.

**Bear Creek**

(see Robinson under gold)

**Belle of Tennessee (18)**  
(see under gold)

**Bergeson (8)**  
(see under gold)

**Black Jack**  
(see under gold)

**Bobtail (36)**  
(see under copper)

**Bondholders Syndicate**  
(see Apex under gold)

**Bridal Veil**  
(see under gold)

**Brooklyn (23)**  
(see under copper)

**Brown Bear (59)**  
(see under copper)

**Carmack (54)**  
(see under gold)

**Cascade**  
(see Seattle-Cascade)

**Cleopatra (40)**  
**Loc:** NW¼SE¼ sec. 24, (25-10E). **Elev:** 3,850 ft. **Access:** 7½ mi. up Miller R. road from the old Stevens Pass highway, thence 1½ mi. by trail. **Prop:** 2 claims: Silver Star, Silver Star No. 1. **Owner:** E. C. Maloney, Skykomish, Wash., leasing to Henry Trenk of the Cascade Mining Co. (1949—). **Ore:** Silver, lead, copper, zinc, antimony, gold. **Ore min:** Argentiferous galena, chalcopryrite, tetrahedrite, arsenopyrite, pyrite, dyscrasite (?), jamesonite, sphalerite. **Gangue:** Quartz. **Deposit:** Altered and mineralized zones along joints in granodiorite. Best assays are from 2 zones each about 2½ ft. wide. **Dev:** 2,100 ft. of adits, winzes, drifts, crosscuts, and a raise. **Assays:** Max. 581 oz. Ag, \$10 Au. One ore zone 100 ft. long and 2½ ft. wide av. 20 oz. Ag. **Prod:** Intermittent prior to 1914. 1938, 1940, 1941. **Ref:** 43, 1898, p. 260. 63, p. 37. 68, p. 7. 97, 1939, p. 490; 1941, p. 473. 114, no. 5, 1909. 130, p. 59. 132, pp. 79-83. 141, p. 50. 147, p. 180. 158. 159, p. 135.

**Climax (3)**  
(see under copper)

**Commonwealth (51)**  
**Loc:** Sec. 34, (23-11E), Snoqualmie dist., on Snow Lk. trail. **Ore:** Silver, copper, gold. **Deposit:** In granodiorite. **Ref:** 63, p. 42. 158.

**Coney Basin (27)**  
(see under gold)

**Copper Bell**  
(see under gold)

**Copper Chief (50)**  
(see under copper)

**Copper Duke (11)**  
(see under gold)

**Copper Plate**  
(see Seattle-Cascade)

**Damon and Pythias (17)**  
(see under gold)

**Dawson (28)**  
(see under lead)

**Devils Canyon (42)**  
(see under molybdenum)

**Dutch Miller (34)**  
(see under copper)

**Eureka (60)**  
(see under copper)

**Eureka**  
(see under copper)

**Favorite Gulch (12)**  
(see under gold)

**Fletcher Webster**  
(see under gold)

**Foss River (33)**  
(see under copper)

**Goat Mountain (44)**  
(see under lead)

**Gold Mountain (9)**  
**Loc:** NE¼SE¼ sec. 29, (26-11E). **Access:** 1.2 mi. by road from Money Cr.-Miller R. road junction. **Owner:** Weyerhaeuser Timber Co. (1936). **Ore:** Silver, gold, antimony. **Ore min:** Pyrite, argentiferous stibnite, minor amount of chalcopryrite. **Deposit:** Pyritized and kaolinized andesite in which are reportedly 2 well-defined veins. **Dev:** Reportedly a 1,200-ft. adit, a 20-ft. adit, and another adit caved 30 ft. from the portal. **Ref:** 132, pp. 74-75. 158.

**Golden Tunnel (5)**  
(see under copper)

**Great Republic (6)**  
(see under antimony)

**Guye (52)**  
(see under iron)

**Happy Thought**  
(see Great Republic under antimony)

**Hawkeye**  
(see under gold)

**Helmke**  
(see Lucky Day)

**Jack Pot (43)**  
(see under zinc)

**John Stevens**  
(see Una under copper)

**Kimball (10)**  
(see under gold)

**King and Kinney (29)**  
(see under copper)

**Kinney**  
(see King and Kinney under copper)

**Last Chance (55)**  
(see under gold)

**Last Chance (24)**  
(see under gold)

**Laura Lindsay**  
(see under gold)

**Lennox (19)**  
(see under gold)

**Le Roi (37)**  
(see under gold)

**Leta (48)**  
(see under gold)

**Lone Star (25)**

(see under gold)

**Lost Lode (45)**

(see under molybdenum)

**Lucky Day (Helmke) (26)**

**Loc:** Sec. 5, (25-12E), Foss R. dist. **Prop:** 11 unpatented claims. **Owner:** Lucky Day Mining & Milling Co., Inc., Everett, Wash. (1938). **Ore:** Silver. **Dev:** 200 ft. of adit. **Ref:** 58, p. 41. 158.

**Lucky Strike (21)**

(see under gold)

**Mastodon**

**Loc:** Near head of N. Fk. Snoqualmie R., Buena Vista dist. **Ore:** Silver, gold, copper. **Ref:** 63, p. 43.

**May Earhart**

(see Robinson under gold)

**Metropolitan (38)**

(see under gold)

**Mona**

(see Mono under copper)

**Monarch (13)**

(see under gold)

**Mono (7)**

(see under copper)

**Monte Carlo (22)**

(see under gold)

**Mt. Logan**

(see Guye under iron)

**Mount Phelps (20)**

(see under zinc)

**Mountain Gem**

(see under gold)

**Neptune (14)**

(see under gold)

**Normandie**

(see Bergeson under gold)

**Ophir (56)**

(see under gold)

**Paymaster**

(see under gold)

**Pedro**

(see under copper)

**Pythias**

(see Damon and Pythias under gold)

**Quartz Creek (46)**

(see under copper)

**Rainy (47)**

(see under gold)

**Robinson (61)**

(see under gold)

**Romeo**

(see under gold)

**Salmon Creek (2)**

(see under gold)

**San Francisco (15)**

(see under gold)

**Seattle (57)**

(see under gold)

**Seattle-Cascade (Triple S, Silver Dollar and Copper Plate) (30)**

**Loc:** Center N½ sec. 17, (25-11E), on W. side of Miller R. **Access:** 4 mi. by road from railroad at Berlin. **Prop:** 6 claims. **Owner:** Seattle-Cascade Mining Co. (1908-1909). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Sphalerite, galena, pyrite, arsenopyrite, chalcocopyrite. **Gangue:** Quartz. **Deposit:** Several shear zones in granodiorite. Best mineralized zone has av. width of 18 in. Ore occurs in bands. Widest band was 8 in. wide. **Dev:** 400-ft. adit, 700 ft. lower an 800-ft. adit with 250-ft. raise. **Assays:** Av. of 4 old assays shows \$15.27 Ag, \$11.31 Pb, \$7.08 Cu, \$2.00 Au. **Prod:** A few carloads of lead ore from upper adit prior to 1900. 1940. **Ref:** 46, pp. 161-162. 97, 1941, p. 473. 105, no. 20, 1909, p. 680. 114, no. 5, 1909, p. 112. 116, no. 6, 1908, p. 158. 147, p. 184. 158.

**Silver Dollar and Copper Plate**

(see Seattle-Cascade)

**Silver Star (41)**

**Loc:** NW¼ sec. 24, (25-10E), Miller R. dist. **Ore:** Silver, gold, lead, zinc, antimony. **Assays:** 5% Sb. **Ref:** 158.

**Sockless Jerry**

(see Last Chance under gold)

**Solomon (53)**

(see under gold)

**Stemwinder (58)**

(see under gold)

**Stevens**

(see Una under copper)

**Summit**

(see Guye under iron)

**Sunday**

**Loc:** On King Solomon Cr. a little below the Cleopatra Basin, Miller R. dist. **Ore:** Silver, gold, copper. **Ref:** 63, p. 37.

**Surprise**

(see under copper)

**Triple S**

(see Seattle-Cascade)

**Triune**

(see under gold)

**Una (31)**

(see under copper)

**Vandalia**

(see under gold)

**War Eagle (32)**

(see under gold)

**Western States Copper**

(see Rainy under gold)

**Yellow Jacket (4)**

(see under gold)

**KITSAP COUNTY****Chico (1)**

(see under tin)

**Cook-Kitchen**

(see Chico under tin)

**Kitchen**

(see Chico under tin)

## KITITITAS COUNTY

**American Eagle**

(see under gold)

**Aurora (1)**

(see under gold)

**Bear Creek Gold****Loc:** Fish Lk. area. **Prop:** 7 claims. **Owner:** Camp Creek Mining Co. (1939). **Ore:** Silver, gold. **Ref:** 158.**Beaver (4)**

(see under gold)

**Big Bug**

(see under copper)

**Big Z**

(see Zerwekh under gold)

**Blue Bonnet (17)**

(see under copper)

**Bonanza**

(see Dolphin under copper)

**Boss**

(see under gold)

**Boyles (19)**

(see under copper)

**Brown Bear**

(see under gold)

**Camp Creek (18)****Loc:** On line between secs. 25 and 26, (23-14E), just N. of Camp Cr. **Elev:** 3,000 to 3,800 ft. **Access:** 20 mi. by road to railroad at Ronald. **Prop:** 4 unpatented claims. **Owner:** Cle Elum River Mining Co., Inc., Seattle, Wash. (1952—). Camp Creek Mining Co., Inc. (1929-1940). Phil Denny, Seattle, Wash. (1951). **Ore:** Gold, silver, lead, zinc. **Ore min:** Pyrite, sphalerite, galena, chalcopryrite. **Deposit:** Narrow quartz veins in greenstone. **Dev:** 40-ft. lower adit, 60-ft. adit, 160-ft. adit. **Assays:** 15 tons shipped to Tacoma smelter assayed 0.14 oz. Au, 42 oz. Ag. Grab samples of ore showed 0.27 oz. Au, 3.1 oz. Ag, 0.23% Pb, 0.28% Zn. **Ref:** 58, p. 12. 157. 158.**Cascade**

(see under gold)

**Cascade Mining (13)**

(see under copper)

**Cedar Creek Placer (25)**

(see under gold, placer)

**Clarence Jordin (24)**

(see under gold)

**Cle Elum (5)****Loc:** Near SW. cor. sec. 24, (23-14E), on Hawkins Mtn., Cle Elum dist. **Prop:** 2 claims: Cle Elum, Hawk. **Owner:** Ben Kelly and Judge Boyles (1892). **Ore:** Silver, gold. **Ore min:** Pyrite. **Deposit:** 4-ft. vein. **Dev:** 70-ft. incline. **Assays:** \$55 Ag, \$4 Au. **Ref:** 13, p. 135. 63, p. 64. 146, p. 14.**Dolphin**

(see under copper)

**Don Tom**

(see under gold)

**Durrwachter**

(see Mineral Creek under copper)

**Epha**

(see under gold)

**Esther and Louisa (12)****Loc:** NE¼ sec. 26, (23-12E), on E. side of cirque at head of Gold Cr. **Elev:** 5,000 ft. **Access:** About 6 mi. by trail up Gold Cr. from Snoqualmie Pass highway. **Owner:** Esther Gold & Silver Mining Co. (1915). **Ore:** Silver, gold, lead, zinc. **Ore min:** Pyrite, ruby silver, galena, sphalerite. **Deposit:** Vein near a wide granodiorite dike cutting the Keechelus series. Ore constitutes only a small portion of the vein. **Dev:** 2 adits. **Assays:** Best ore shipped reportedly carried 240 oz. Ag, \$10 Au. **Prod:** Produced about \$1,000 in 1896. **Ref:** 63, p. 61. 146, p. 14.**Family**

(see under gold)

**Gold Leaf**

(see under gold)

**Gold Reef**

(see under gold)

**Golden Fleece (22)**

(see under gold)

**Golden Stair****Loc:** Fish Lk. area. **Owner:** Cle Elum River Mining Co., Inc., Seattle, Wash. (1952—). Camp Creek Mining Co. (1939). **Ore:** Silver, gold. **Ref:** 158.**Good Luck (14)**

(see under lead)

**Granite King (15)****Loc:** Sec. 24, (23-11E), on Gold Cr. **Owner:** Devine Mining Co. (1915). **Ore:** Silver, copper, lead, gold. **Ref:** 58, p. 27. 63, p. 61. 158.**Great Western**

(see under gold)

**Grizzly Bear**

(see under gold)

**Hans Wagner****Loc:** Swauk dist. **Ore:** Silver, gold. **Ref:** 105, 3/07, p. 327.**Huckleberry (11)**

(see under copper)

**Ida Elmore (6)**

(see under gold)

**Iias (20)**

(see under copper)

**Just In Time**

(see under gold)

**King Solomon (3)**

(see under copper)

**Last Chance**

(see under gold)

**Legal Tender**

(see under copper)

**Liberty Lode**

(see Mineral Creek under copper)

**Little York**

(see under gold)

**Louisa**

(see Esther and Louisa)

**Lynch**

(see Aurora under gold)

**Majestic**

(see under gold)



**Mammoth**

(see under gold)

**Mary**

(see under gold)

**Mercer**

(see Golden Fleece under gold)

**Mildred**

(see under copper)

**Mineral Creek (16)**

(see under copper)

**Morning**

(see under gold)

**Morning Star (7)**

(see under copper)

**Mountain Whistler**

(see under gold)

**Navidad**

(see under copper)

**Paramount**

(see Aurora under gold)

**Ruby (10)**

(see under gold)

**Ruby King**

(see under gold)

**Rushing Water**

(see under gold)

**Silver Bull**

(see under gold)

**Silver Creek (2)**

(see under gold)

**Silver Dump (8)**

**Loc:** Sec. 23, (23-14E), Cle Elum dist. **Ore:** Silver, gold, copper, lead. **Ref:** 58, p. 62. 63, p. 65.

**Silver Queen (9)**

**Loc:** Sec. 24, (23-14E), near head of Fortune Cr., Cle Elum dist. **Ore:** Silver, gold. **Ref:** 58, p. 63. 63, p. 63.

**Sonny Brown (23)**

(see under gold)

**T-Bone**

(see Golden Fleece under gold)

**Thorp**

(see under gold)

**Tip Top**

(see under gold)

**Tip Top No. 1**

(see under gold)

**Topping**

(see under gold)

**Twin**

(see under gold)

**Valinia**

(see under gold)

**War Eagle**

(see under gold)

**Williams**

(see Iias under copper)

**Zerwekh (21)**

(see under gold)

## LEWIS COUNTY

**Eagle Peak (1)**

(see under copper)

**Mineral Creek (2)**

(see under zinc)

**Waterfall**

(see under gold)

## LINCOLN COUNTY

**Crystal (1)**

(see under lead)

**Egypt**

(see Pitney Butte under molybdenum)

**Fouress (2)**

(see under zinc)

**Pitney Butte (Fouress) (3)**

(see Fouress under zinc)

**Pitney Butte**

(see under molybdenum)

**Silver Queen**

**Loc:** Egypt dist. **Owner:** Greenville Blake (1897). **Ore:** Silver, copper, lead. **Dev:** 48-ft. shaft with 65-ft. drift. **Ref:** 63, p. 116.

**Spokane Molybdenum**

(see Pitney Butte under molybdenum)

**United Workman**

**Loc:** Probably in Mill Canyon, about 10 mi. SE. of Pitney Butte and 10 mi. from Davenport. **Prop:** 2 claims. **Owner:** Dr. J. P. Turney, C. L. Young, Davenport, Wash. (1897). **Ore:** Silver, gold. **Dev:** 26-ft shaft. **Ref:** 63, p. 116.

## MASON COUNTY

**Black and White (1)**

(see under copper)

## OKANOGAN COUNTY

**Abernathy (22)**

(see under copper)

**Adams**

(see Moncosilgo under copper)

**Adelia**

(see under gold)

**Alder (30)**

(see under gold)

**Allison**

(see Okanogan Free Gold under gold)

**Alta**

(see Chilson under lead)

**American Flag (189)**

(see under copper)

**American Flag (15)**

(see under gold)

**American Rand**

(see Spokane under gold)

**Anaconda (106)**

(see under gold)

**Anchor (Great Metals) (234)**

**Loc:** Center N $\frac{1}{2}$  sec. 28, (31-30E), Nespelem dist. **Prop:** 2 claims: Anchor, West End Apache. **Owner:** G. H. Beggs, Nespelem, Wash. (1939). Old Nespelem Mining Co. (1916). Great Metals Mining & Milling Co. (1918-1922). **Ore:** Silver, lead, zinc, gold. **Ore min:** Argentiferous galena, sphalerite, a little chalcopryite. **Gangue:** Quartz, rhodochrosite. **Deposit:** Mineralized shear zones in coarse granite. Also a barren 6-ft. quartz vein. **Dev:** 2 accessible short adits and several old caved adits and shafts. **Assays:** One assay said to be 0.22 oz. Au, 149.5 oz. Ag. **Ref:** 158.

**Andy O.**

(see Andy O'Neil)

**Andy O'Neil (Andy O.) (227)**

**Loc:** NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, (31-30E), adjoining Anchor claim on NE. **Access:** 2 $\frac{1}{2}$  mi. W. of Nespelem by road. **Prop:** 4 unpatented claims. **Owner:** Frank Ostrowski (1939-1941). **Ore:** Silver, lead, copper. **Ore min:** Galena, pyrite, chalcopryite, tetrahedrite, bornite, marcasite. **Gangue:** Quartz, calcite. **Deposit:** Fissure veins in granite at and near its contact with quartzite. Ore minerals constitute 25% of the vein in places. Veins 1 to 4 ft. wide. **Dev:** 800 ft. of workings on 3 levels, including 2 winzes and a haulage adit. **Assays:** Typical assay said to be 30 oz. Ag, 20% Pb, \$0.75 Au. **Prod:** Test shipment prior to 1940. **Ref:** 129, pp. 214-215. 158.

**Anna (232)**

**Loc:** Near SE. cor. sec. 17, (31-30E), 2 mi. NW. of the Apache workings on Multnomah Hill, Nespelem dist. **Prop:** 1 claim. **Owner:** G. H. Beggs, Nespelem, Wash. (1939). **Ore:** Silver, lead. **Ore min:** Mainly galena and pyrite, some sphalerite and chalcopryite. **Deposit:** Small mineralized quartz veins in fracture zone in granite. Zone about 4 ft. in width. **Dev:** Adit and shaft. **Assays:** Samples from shaft reportedly assayed 43 oz. Ag. **Ref:** 158.

**Antimony Gold**

(see Abernathy under copper)

**Antimony Queen (36)**

(see under antimony)

**Apache (235)**

**Loc:** SE $\frac{1}{4}$  sec. 27, (31-30E), near crest of SE. spur of Mineral Hill. **Elev:** 2,100 ft. **Access:** 2 $\frac{1}{2}$  mi. SW. of Nespelem by dirt road. **Prop:** 3 unpatented claims. **Owner:** Apache Gold Mines, Inc., Nespelem, Wash. (1937-1942). Apache Mining Co. (1908-1926). **Ore:** Silver, gold, lead. **Ore min:** Argentite, galena, tetrahedrite, pyrite, native silver, sphalerite, pyrargyrite, stephanite, chalcopryite. **Gangue:** Quartz, rhodochrosite. **Deposit:** Tabular lenses and veinlets of ore along an 8- to 10-ft. fracture zone in granite. Ore-bearing portion of the zone is 1 to 2 ft. wide. **Dev:** Main haulage adit 700 ft. long, 2,500 ft. of workings on 3 levels, including 3 shafts and 3 adits. **Assays:** High-grade ore 300 oz. Ag,  $\frac{3}{4}$  oz. Au, 1 $\frac{1}{2}$ % Cu. Mill-run ore reportedly about \$12 per ton. **Prod:** 29 tons of ore with gross value of \$10,170 in 1911-1912. Also produced 1916-1917, 1919-1922, 1925-1926, 1937-1940. Est. production to 1940 \$250,000 Ag, \$20,000 Au. **Ref:** 88, p. 34. 97, 1908, 1911-1913, 1915-1916, 1919-1922, 1925-1926, 1938. 98, 1922, p. 1633; 1925, p. 1802; 1926, p. 1568. 105, 12/5/08, p. 761. 122, pp. 72-74. 129, pp. 207-209. 141, p. 22. 158.

**Apex (167)**

(see under copper)

**Arizona**

(see Horn Silver)

**Arizona**

**Loc:** Near Ruby. **Owner:** George Melvin (1892). **Ore:** Silver, gold. **Ore min:** Tetrahedrite. **Deposit:** 6-ft. quartz vein. An extension of the Buckeye. **Dev:** 70-ft. adit, 25-ft. shaft. **Assays:** Reportedly \$100 to \$260 Au, Ag. **Ref:** 12, p. 52. 13, p. 85. 104, 2/29/36, p. 28.

**Arlington (161)**

**Loc:** SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 5, (34-25E), on W. slope of Ruby Hill. **Elev:** 4,400 ft. **Access:** 4 mi. by road from the Salmon Cr. road at Ruby. **Prop:** 9 patented claims: Arlington, Arlington Fr., 1806, Minnesota, Missing Link, Pomeroy, Princess, Riley, Eureka; and 3 unpatented claims. **Owner:** Arlington Mines, Inc. (1937-1945). Arlington Mining Corp. (1905-1933). Ruby Mountain Mining Co. (1935-1936). **Ore:** Silver, copper, lead, gold. **Ore min:** Argentiferous galena, chalcopryite, tetrahedrite, sphalerite, pyrite, pyrargyrite. **Deposit:** Quartz vein mainly in granite near contact with schist. Main vein av. 4 $\frac{1}{2}$  ft. in width and carries ore in banded segregations. Other similar but smaller parallel veins. **Dev:** About 4,500 ft. of underground workings on at least 3 levels. **Assays:** 24 cars av. in 1920; 66 oz. Ag, 0.02 oz. Au, 1.15% Cu. 2 ore shoots in floor of 100-ft. level at bottom of shaft said to total 350 ft. in strike length, av. width of about 2 $\frac{1}{2}$  ft., and av. assay of about 18 oz. Ag (1947). **Prod:** 1,000 tons in 1901, shipped siliceous ore 1914-1921, shipped conc. in 1937, 80,000 oz. Ag and 33,000 lb. Cu in 1938, shipped in 1940. 5,700 tons mined in 1937-1939 was milled and gave net value at smelter of \$71,683. Total production \$144,650. **Ref:** 12, pp. 47-48. 13, p. 80. 33, 1908, p. 337. 63, p. 92. 68, p. 5. 75, pp. 32-34. 88, pp. 33-34. 97, 1914-1921, 1938, 1941. 98, 1920, 1922, 1925, 1926. 104, 12/15/35, p. 26; 11/30/36, p. 29. 108, 7/39, p. 9; 9/40. 112, 1918, p. 167. 113, no. 13, 1937, p. 7. 129, pp. 250-253. 130, p. 87. 157. 158.

**Atkins (192)**

(see under lead)

**Aztec (173)**

(see under iron)

**Beaver (182)**

(see under gold)

**Bellevue (92)**

(see under gold)

**Ben Harrison**

(see Apex under copper)

**Bergman**

(see Shaw-Bergman under copper)

**Big Boy (16)**

(see under gold)

**Big Hole**

(see under gold)

**Billy Goat (4)**

(see under copper)

**Bi-Metallic (184)**

(see under molybdenum)

**Black Bear (103)**

(see under gold)

**Black Huzzar**

**Loc:** Galena area, NW. of the Silver Belle group, Conconully dist. **Prop:** 1 claim. **Owner:** Gus Lieder and A. D. McKey (1892). **Ore:** Silver, copper, gold. **Ore min:** Argentite, chalcocite. **Deposit:** 3½-ft. quartz vein. **Assays:** 90 oz. Ag, 3.50% Cu, tr. Au. **Ref:** 13, p. 111.

**Black Jack (39)**

(see under gold)

**Black Warrior**

(see under gold)

**Blanche (77)**

(see under gold)

**Blue Daisy**

**Loc:** Conconully dist. **Ore:** Silver. **Assays:** 70 oz. Ag. **Ref:** 12, p. 61. 13, p. 112.

**Blue Grouse (151)**

(see under lead)

**Bodie (186)**

(see under gold)

**Bolinger (38)**

(see under gold)

**Bornite**

(see Peacock under copper)

**Boundary (Sheep Mountain)**

(see Sheep Mountain under molybdenum)

**Boundary**

**Loc:** Okanogan County. **Owner:** S. J. Polley, et al., Mason City, Wash. (1938). **Ore:** Silver. **Ref:** 158.

**Bridgeport**

**Loc:** Conconully dist. **Ore:** Silver, lead. **Ref:** 58, p. 10. 63, pp. 93-94.

**Brunswick**

(see under lead)

**Buck Mountain (50)**

(see under tungsten)

**Buckeye (108)**

(see under copper)

**Buckeye**

**Loc:** Near Ruby on Ruby Hill. **Prop:** 1 claim. **Owner:** George Melvin (1892). **Ore:** Silver, gold. **Ore min:** Tetrahedrite. **Deposit:** 7-ft. vein of quartz. **Dev:** 70-ft. adit. **Assays:** An old assay reports \$100 Au, Ag. **Ref:** 12, p. 52. 13, p. 85.

**Buckhorn**

(see Buck Mountain under tungsten)

**Bullfrog (88)**

(see under gold)

**Bunker Hill**

(see Silver King under lead)

**Butcher Boy (168)**

(see under gold)

**Caaba**

(see Kaaba under lead)

**Cabin (236)**

(see under lead)

**Callahan**

(see Plant-Callahan)

**Calumet**

(see under gold)

**Caribou (174)**

(see under gold)

**Carl Frederick (122)**

**Loc:** Near NW. cor. sec. 35, (37-23E), near W. crest of Clark Peak, Conconully dist. **Elev:** 7,200 ft. **Access:** 9 mi. by trail up Salmon and Peak Creeks, thence over 7,600-ft. pass between Clark Peak and Tiffany Mtn. **Prop:** 9 unpatented claims. **Owner:** Carl Frederick Mining Co. (1921-1926). **Ore:** Silver, lead. **Ore min:** Argentiferous galena, cerargyrite, argentite, bromyrite. **Gangue:** Quartz. **Deposit:** 1 to 4 ft. of crushed ledge matter in which is a 4- to 24-in. quartz vein. Vein is sparsely mineralized except for one shoot 50 ft. long. **Dev:** 400-ft. drift, 268-ft. crosscut. **Assays:** Some ore said to av. 20 oz. Ag. **Ref:** 98, 1922-1926. 129, pp. 256-257.

**Carr (5)**

(see under copper)

**Castle Creek (196)**

(see under lead)

**Catherine (58)**

**Loc:** Secs. 22 and 23, (40-25E), Nighthawk dist. **Owner:** Boundary Consolidated Metals, Inc., Seattle, Wash. **Ore:** Silver, lead, zinc, copper. **Ref:** 158.

**Central (Trinidad) (124)**

**Loc:** Near center sec. 10, (36-26E), on shore of Turtle Lk. **Elev:** 2,000 ft. **Access:** 10 mi. by road SW. of Tonasket. **Prop:** 12 claims. **Owner:** Trinidad Mining & Smelting Co. (1915-1926). **Ore:** Silver, lead, gold, copper, zinc. **Ore min:** Galena, chalcocopyrite, pyrite, sphalerite. **Deposit:** Irregular mineralized zone in aplite porphyry dike intruding argillite and hornblende porphyry. Zone 300 ft. wide. **Dev:** 50-ft. shaft from which 2 short drifts have been driven. **Assays:** 6 to 8 oz. Ag. 30-ton shipment av. \$12 Au, Ag. **Prod:** 30 tons in 1918. **Ref:** 58, p. 69. 97, 1918, p. 506. 98, 1918-1926. 112, p. 206. 129, pp. 257-258. 141, p. 22.

**Central (American Flag)**

(see American Flag under gold)

**Central (Park and Central)**

(see Park and Central under lead)

**Chesaw (169)**

(see under gold)

**Chicago (107)**

(see under gold)

**Chickamun (34)**

(see under copper)

**Chief Sunshine (Sunshine Chief) (143)**

**Loc:** SW¼SE¼ sec. 35, (36-24E). **Access:** 2½ mi. from Conconully. **Prop:** 7 unpatented claims. **Owner:** Alfred Davidson, Conconully, Wash. (1941). **Ore:** Silver, lead, zinc, copper, gold. **Ore min:** Tetrahedrite, galena, pyrite. **Deposit:** Quartz vein near a lamprophyre dike in granite. Vein av. about 1 ft. in width. Short sections of the vein are heavily mineralized. **Dev:** 500-ft. adit, 360-ft. adit. **Improv:** 2 cabins and a road built in 1941. **Assays:** Ore said to av. \$20 per ton. One assay shows 94.90 oz. Ag, 15% to 16% Pb, 8.8% Zn, 3.5% to 4.5% Cu, 0.035 oz. Au. **Prod:** Sporadic shipments in 1937, 1938, 1940, 1941. **Ref:** 46, pp. 214-215. 97, 1938, p. 459; 1939, p. 490. 158.

**Chilson**

(see under lead)

**Chloride**

**Loc:** Twisp dist. **Prop:** 1 claim. **Owner:** Robert Allison, H. E. Davis, and John Mulholland (1892). **Ore:** Silver, copper, antimony, gold. **Ore min:** Argentite, chalcocite, stephanite, malachite. **Deposit:** 4-ft. quartz vein. **Dev:** 100-ft. adit. **Assays:** 240 to 650 oz. Ag, 1.25% to 2.0% Cu, tr. Au. **Ref:** 12, p. 68. 13, p. 112.

**Chopaka (55)**

**Loc:** S½ sec. 10, (40-25E), Nighthawk dist. **Prop:** 1 claim. **Owner:** Professor Riley (1892). **Ore:** Silver, gold, copper. **Ore min:** Pyrite, chalcopyrite. **Deposit:** 10-ft. quartz vein. **Dev:** 30-ft. drift. **Assays:** 0.80 to 1.10 oz. Au, 75 to 125 oz. Ag, 1.50% to 1.90% Cu. **Ref:** 13, p. 108.

**Cleopatra**

(see under gold)

**Combination (109)**

(see under gold)

**Continental**

(see Mazama Queen under gold)

**Controller (215)**

(see under copper)

**Copper Glance (7)**

(see under copper)

**Copper King (126)**

(see under lead)

**Copper World (98)**

(see under copper)

**Copper World Extension (99)**

(see under copper)

**Copper Zone**

(see under copper)

**Cornucopia**

(see under gold)

**Crescent**

(see Triune under gold)

**Crown Point**

(see Imperial under gold)

**Crystal Butte (181)**

(see under gold)

**Crystalite**

(see under gold)

**Curlew (66)**

(see under gold)

**Daisy (9)**

(see under gold)

**Damfino (40)**

(see under gold)

**Defiance (113)**

(see under gold)

**Delaware**

**Loc:** On S. side of Similkameen R., Nighthawk dist. **Prop:** 1 claim. **Owner:** Messrs. Hamilton, Smith, and Gibson (1892). **Ore:** Silver, gold. **Ore min:** Argentite. **Deposit:** 2-ft. quartz vein. **Dev:** Two 15-ft. shafts. **Assays:** Assays from shaft, outcrops, and dump show 0.10 to 1.10 oz. Au, 110 to 115 oz. Ag. **Ref:** 13, p. 110.

**Denver City**

(see Leadville under gold)

**Dexter**

**Loc:** On W. side of Ellemeham Mtn., 1½ mi. from Palmer Lk., Nighthawk dist. **Prop:** 1 claim. **Owner:** M. S. Dudley, Thomas Hanway and Frederick Bowman (1892). **Ore:** Silver, gold. **Ore min:** Argentite. **Deposit:** Quartz vein. **Dev:** 300-ft. drift. **Assays:** As high as \$300 Au, Ag reported. **Ref:** 13, p. 110.

**Diamond (147)**

**Loc:** W. of Lady of the Lake property, approx. in sec. 1, (35-24E), Conconully dist. **Ore:** Silver, gold. **Deposit:** 4 ft. of ore with an 18-in. paystreak. **Dev:** 20-ft. adit. **Assays:** \$60 Au, Ag. **Ref:** 12, p. 58. 13, p. 112.

**Diamond Queen (51)**

(see under gold)

**Dividend (81)**

(see under copper)

**Dixie Queen**

(see Antimony Queen under antimony)

**Dodd**

(see Sheep Mountain under molybdenum)

**Double Eagle**

(see Dry Bone under lead)

**Double Header**

(see Little Chief)

**Dry Bone**

(see under lead)

**Duke of Windsor**

(see Dry Bone under lead)

**Eagle (67)**

(see under lead)

**Eloise (68)**

**Loc:** Sec. 23, (40-25E), Nighthawk dist. **Owner:** Mines Operating Co. (1918). **Ore:** Silver, lead, copper, gold. **Ref:** 112, p. 18.

**Emerald (49)**

(see under gold)

**Empire (97)**

(see under gold)

**Empress**

(see under gold)

**Esther (127)**

(see under lead)

**Eureka (197)**

(see under lead)

**Eureka (75)**

(see under lead)

**Eureka**

(see under lead)

**Eureka**

**Loc:** Galena area, NW. of Silver Belle group, Conconully dist. **Prop:** 1 claim. **Owner:** Gus Lieder and A. D. McKey (1892). **Ore:** Silver, copper, gold. **Ore min:** Argentite, chalcocite. **Deposit:** 4-ft. quartz vein. **Assays:** 0.10 oz. Au, 370 oz. Ag, 3.90% Cu. **Ref:** 13, p. 111.

**Evening (228)**

**Loc:** S½SE¼ sec. 21, (31-30E), 4 mi. W. of Nespelem. **Access:** Road. **Ore:** Silver, copper, lead, zinc. **Ore min:** Chalcopyrite, galena, sphalerite. **Gangue:** Epidote, vesuvianite. **Deposit:** Roof pendant of argillite and schist about 10 acres

in extent. Certain limy layers altered to lime-silicates contain the ore minerals. **Dev:** Few small open pits. **Assays:** A picked sample containing coarse crystals of galena assayed 20.2 oz. Ag, tr. Au. **Ref:** 122, pp. 83-84.

#### Evening Star (128)

**Loc:** Sec. 31, (36-25E), northern extension of the Minnehaha property, Conconully dist. **Prop:** 1 claim. **Owner:** Messrs. Segmar and Manual (1892). **Ore:** Silver, copper. **Ore min:** Native silver, chalcopryite. **Deposit:** 4-ft. vein exposed on the surface. **Dev:** 60-ft. shaft. **Ref:** 13, p. 93.

#### Excelsior (42)

(see under gold)

#### Fairview

(see under lead)

#### Fairview

(see under gold)

#### Favorite (69)

(see under lead)

#### Finella

(see under iron)

#### First Thought (152)

**Loc:** NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 31, (35-25E), on Ruby Mtn. **Owner:** Benton Bailey, lessee (1949). First Thought Silver Mining Co. (1922-1926). **Ore:** Silver, lead, copper, zinc. **Ore min:** Tetrahedrite, stephanite, galena, chalcocite, sphalerite, pyrite, chalcopryite. **Deposit:** Quartz lenses as much as 700 ft. in dia. and 90 ft. thick parallel the foliation in schist and gneiss. Lenses mineralized on foot and hanging walls. **Dev:** About 4,000 ft. of workings on 3 levels. **Assays:** 75 to 80 tons of carefully sorted ore produced in 1922 assayed 75 to 100 oz. Ag. Wide ore bodies av. 6 to 8 oz. Ag. Old assays across the vein showed \$30 Ag. **Prod:** More than \$66,000 reported. **Ref:** 12, pp. 49-50. 13, pp. 79-80. 63, p. 93. 68, p. 5. 75, pp. 31-32. 97, 1921, p. 427. 98, 1922-1926. 129, p. 255. 157.

#### Fluorspar

(see Tonasket under copper)

#### Four Metals (57)

(see under lead)

#### Fourth of July (162)

**Loc:** SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, (34-25E), near crest of Ruby Hill,  $\frac{1}{2}$  mi. N. of Arlington mine, Conconully dist. **Elev:** 4,500 ft. **Owner:** Leased to Benton Bailey (1949). **Ore:** Silver, copper, gold. **Ore min:** Tetrahedrite, argentite, native silver, stephanite, cerargyrite, ruby silver. **Gangue:** Quartz. **Deposit:** Vein said to av. 10 ft. in width and to carry a streak of sulfide ore 18 to 24 in. in av. width. **Dev:** 500-ft. shaft. **Assays:** Av. assays said to be \$100 per ton mostly in silver. Gold is in trace amounts. **Prod:** \$36,000 recorded. **Ref:** 12, pp. 48-49. 13, pp. 80-81. 63, p. 93. 68, p. 5. 75, p. 32. 129, pp. 255-256.

#### Frankie Boy (148)

**Loc:** NW $\frac{1}{4}$  sec. 2, (35-24E), Conconully dist. **Owner:** Washington Consolidated Mines & Reduction Co. (1915-1918). **Ore:** Silver, lead, copper, molybdenum. **Ore min:** Chalcopryite, galena, tetrahedrite, pyrite, molybdenite. **Deposit:** 1-ft. quartz vein in granite. **Ref:** 75, p. 28. 112, p. 209.

#### Friday (52)

(see under gold)

#### General Miles (205)

(see under lead)

#### Goat Creek

(see under copper)

#### Gold Axe (175)

(see under gold)

#### Gold Coin (17)

(see under gold)

#### Gold Crown (60)

(see under gold)

#### Gold Crown (Spokane)

(see Spokane under gold)

#### Gold Cup

**Loc:** Galena area, adjacent to Black Huzzar group, Conconully dist. **Prop:** 1 claim. **Owner:** Isaac H. Durboraw, Tacoma, Wash. (1892). **Ore:** Silver, gold. **Assays:** \$80 Ag, tr. Au. **Ref:** 13, p. 112.

#### Gold Dust (82)

(see under copper)

#### Gold Eagle (61)

**Loc:** Galena area, adjacent to Black Huzzar group. Possibly sec. 32, (40-25E), Conconully dist. **Prop:** 1 claim. **Owner:** Percy O. Luce, Coulee Dam, Wash. (1949). Isaac H. Durboraw, Tacoma, Wash. (1892). **Ore:** Silver, gold. **Assays:** \$120 Ag, tr. Au. **Ref:** 13, p. 112.

#### Gold Hill (105)

(see under gold)

#### Golden Chariot (83)

(see under copper)

#### Golden Zone (54)

(see under gold)

#### Goodenuff (224)

**Loc:** Secs. 8 and 9, (31-30E). **Ore:** Silver, lead, gold, copper. **Deposit:** Deposit and mineralization similar to that of the Home Run, which see. **Dev:** 25-ft. shaft (1913). **Ref:** 58, p. 26. 122 p. 83.

#### Gould & Curry (237)

(see under lead)

#### Grand Coulee

(see Little Chief)

#### Grandview (Leadville)

(see Leadville under gold)

#### Grandview

(see under gold)

#### Grant

(see Roosevelt under iron)

#### Great Divide (229)

**Loc:** SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 16, (31-30E), Nespelem dist. **Access:** 4 mi. W. of Nespelem by road. **Ore:** Silver, lead, gold. **Ore min:** Pyrite, chalcopryite, galena, chalcocite. **Gangue:** Quartz, sericitized granite. **Deposit:** Zone 50 ft. or more wide in which the granite is seamed, fractured, and sericitized. Mineralized along the fractures and in small quartz veinlets. Bunches of ore minerals up to 2 ft. in dia. **Dev:** 300-ft. adit with 100 ft. of crosscuts, several small shafts and pits. **Assays:** "Bunches" of ore said to assay as high as 100 oz. Ag. **Ref:** 58, p. 27. 122, p. 78.

#### Great Metals

(see Anchor)

#### Great Western (211)

(see under lead)

#### Grover Cleveland

(see under lead)

**Grubscher**

(see Gubser under lead)

**Gubser**

(see under lead)

**Hanford (198)**

(see under lead)

**Hanks (3)**

(see under copper)

**Hardscrabble (130)**

**Loc:** Sec. 30, (36-25E), NE. of the Mammoth claim, Conconully dist. **Prop:** 1 claim. **Owner:** Hardscrabble Mining & Milling Co. (1891-1892). **Ore:** Silver, antimony. **Ore min:** Stephanite. **Deposit:** 15-in. vein with an 11-in. paystreak. **Dev:** 30-ft. drift. **Assays:** 3 old assays gave 178, 335, and 658 oz. Ag. **Ref:** 12, p. 59. 13, p. 95.

**Hargrove**

(see Silver King under lead)

**Hart Stone**

(see Kelsey under copper)

**Hattie**

(see under gold)

**Hehe**

(see under gold)

**Henrietta (44)**

(see under gold)

**Hercules (206)**

(see under lead)

**Hercules (117)**

(see under gold)

**Hiawatha (93)**

(see under gold)

**Hidden Treasure (131)**

**Loc:** Sec. 31, (36-25E), NE. of Diamond prospect, Conconully dist. **Ore:** Silver, gold. **Deposit:** 2 ft. of ore exposed. **Dev:** 50-ft. shaft. **Assays:** Ore from bottom of shaft assayed \$63 Ag, Au. **Ref:** 12, p. 59, 13, p. 98.

**Hidden Treasure (209)**

(see under copper)

**Hidden Treasure (Highland) (45)**

(see under gold)

**Hill-Thomas**

**Loc:** Twisp dist. **Prop:** 1 claim. **Owner:** Messrs. Hill and Thomas (1892). **Ore:** Silver, gold. **Deposit:** 13 in. of ore. **Dev:** 75-ft. inclined shaft. **Assays:** 118 to 325 oz. Ag, tr. Au. **Ref:** 13, p. 113.

**Hilo**

(see St. Paul)

**Home Run (225)**

**Loc:** NW¼SE¼ sec. 8, (31-30E), Nespelem dist. **Ore:** Silver, copper, gold. **Ore min:** Chalcopryrite, pyrite, magnetite, specularite. **Gangue:** Epidote, hornblende. **Deposit:** Quartzite and silicified argillite surrounded and metamorphosed by granite. **Dev:** 30-ft. shaft. **Assays:** Sample representative of a small portion of the mass assayed 2.32 oz. Ag, 0.51% Cu, tr. Au. **Ref:** 122, p. 82.

**Homestake (132)**

(see under lead)

**Horn Silver (Arizona) (76)**

**Loc:** S½ sec. 21, (40-26E), Nighthawk dist. **Prop:** 5 claims. **Owner:** Hornsilver Mining Co. (1902-1915). **Ore:** Silver, copper, gold. **Ore min:** Stephanite, cerargyrite, a little proustite, galena, sphalerite, pyrite, chalcopryrite. **Gangue:** Quartz. **Deposit:** 3 veins. The one which has been most developed is 4 in. to 4 ft. wide and is composed of well-mineralized quartz. Country rock is argillite and granite. **Dev:** 750 ft. of adit, a raise of 100 ft., and a shaft 100 ft. deep. **Assays:** 2 carloads of ore av. \$62 per ton. \$2.50 of this amount was in Cu and Au, the remainder in Ag. **Prod:** Several carloads of ore prior to and during 1909. **Ref:** 97, 1910, p. 604. 104, 12/15/35, p. 26; 6/15/37, p. 32. 106, 8/2/29, 5/1/30. 154, p. 100. 158.

**Hotchkiss**

(see Mazama Pride under gold)

**Hudnut (Hudnutt) (233)**

(see under zinc)

**Hunter (46)**

(see under gold)

**Ida (183)**

(see under gold)

**Idaho**

**Loc:** Adjoins War Eagle property W. of Ruby. **Access:** Truck road from main county road. **Owner:** Idaho Mining Co. (1892). **Ore:** Silver, lead, gold. **Gangue:** Quartz. **Deposit:** 14-ft. vein with 2-ft. paystreak. **Dev:** 50-ft. shaft, crosscut. **Assays:** 6 old assays show tr. Au, 34 to 54 oz. Ag, 3.75% to 9% Pb. **Ref:** 12, pp. 51-52. 13, p. 83.

**Imperial (13)**

(see under gold)

**Independence**

**Loc:** On Mineral Hill, Conconully dist. **Owner:** John Stech, Seattle, Wash. (1897). **Ore:** Silver, lead. **Dev:** 100-ft. shaft. **Ref:** 63, p. 94.

**Independent (207)**

(see under lead)

**Iron Cap**

(see under gold)

**Iron Cap and Snow Cap (23)**

(see under gold)

**Iron Crown**

(see under gold)

**Iron Dike (195)**

(see under zinc)

**Iron Mask**

(see Copper World Extension under copper)

**Iron Master (100)**

(see under gold)

**Ivanhoe (111)**

**Loc:** SW¼ sec. 16, (39-26E), Palmer Mtn. dist. **Elev:** 3,700 ft. **Prop:** 4 claims. **Owner:** Ivanhoe Mining Co. (1918-1926). Spokane-Edmonton Mining Co. (1918-1924). **Ore:** Gold, silver. **Ore min:** Pyrite, stephanite, cerargyrite, ruby silver. **Deposit:** Fine-grained iron-stained quartz vein enclosed in calcareous slate. Vein 3½ to 4½ ft. wide with a 2½-ft. paystreak. **Dev:** 65-ft. and 80-ft. inclines. **Assays:** Ore shipped said to have netted \$272 to \$636 per ton. **Prod:** Considerable ore shipped about 1900. **Ref:** 12, pp. 63-64. 13, p. 99. 63, p. 99. 98, 1918-1926. 112, pp. 185, 203. 154, p. 102.

**Jackpot (176)**

(see under gold)

**Japan**

(see under copper)

**Jim Dodd**

(see Sheep Mountain under molybdenum)

**John Arthur (144)**

**Loc:** Sec. 36, (36-24E), an extension of the Lone Star mine, Conconully dist. **Prop:** 1 claim. **Owner:** J. T. McDonald, Ellensburg, Wash. (1892). **Ore:** Silver, gold. **Ore min:** Pyrite, argentite, wire silver. **Gangue:** Quartz. **Deposit:** 10-ft. vein with a 2- to 2½-ft. paystreak. **Dev:** 70-ft. inclined shaft. **Assays:** 30 to 116 oz. Ag, tr. to 5 oz. Au. **Ref:** 13, p. 88. 63, p. 93.

**John Judge**

(see Leadville under gold)

**Jones (20)**

(see under copper)

**Josie**

(see Hiawatha under gold)

**Juanita**

(see under gold)

**Julia (64)**

(see under lead)

**Jumbo**

(see under gold)

**Junction**

(see under gold)

**Kaaba (70)**

(see under lead)

**Kaaba-Texas**

(see Kaaba under lead)

**Kankakee (230)**

(see under copper)

**Kansas (153)**

(see under copper)

**Kelsey (84)**

(see under copper)

**Key (133)**

**Loc:** NW¼ sec. 31, (36-25E), on E. side of Salmon R. **Elev:** 2,500 ft. **Access:** 1½ mi. N. of Conconully by road. 18 mi. by road to railroad at Okanogan. **Prop:** 6 claims. **Owner:** W. A. Hargraves, Conconully, Wash. (1941). **Ore:** Silver, lead, gold, copper, bismuth. **Ore min:** Galena, pyrite, chalcopryrite, sphalerite. **Deposit:** Vein 3 to 10 ft. wide in granite and mica schist. Most of the vein is too low grade for shipping ore but is high enough for milling ore. **Dev:** 300-ft. adit, 45-ft. shaft, 105-ft. drift. **Assays:** 12 tons av. \$37 Ag, Pb. **Prod:** 12 tons shipped to Trail smelter in 1914. **Ref:** 46, p. 207. 75, p. 25. 97, 1914, p. 651. 158.

**Keystone (134)**

**Loc:** Sec. 31, (36-25E), on Ruby Mtn. S. of Fourth of July mine. **Owner:** Keystone Mining Co. (1890). **Ore:** Silver, gold. **Deposit:** 8-ft. vein. **Dev:** 150-ft. shaft. **Assays:** Old assay of ore on dump gave \$45 Au, Ag. **Ref:** 12, pp. 52-53. 13, p. 85.

**Kimberly (90)**

(see under lead)

**King Solomon**

(see under gold)

**Kodak**

(see under gold)

**Kyota (191)**

**Loc:** Sec. 3, (34-30E). **Prop:** 3 claims. **Owner:** Frank W. Meyer (1934). **Ore:** Silver, gold. **Deposit:** Vein 30 in. wide at face of adit. **Dev:** 60-ft. adit. **Assays:** 2 assays showed tr. Au, 0.30 to 0.46 oz. Ag. **Ref:** 158.

**Lady of the Lake (149)**

**Loc:** NE¼ sec. 6, (35-25E), on S. extremity of Homestake Mtn. **Elev:** 2,350 ft. **Access:** ½ mi. E. of Conconully by road. 18 mi. by road to railroad at Okanogan. **Prop:** 2 claims: Lady of the Lake, Hidden Springs. **Owner:** Wm. P. Shirk, Spokane, Wash. (1951). Sie Walter leasing to J. E. Lindston (1942). **Ore:** Silver, copper, lead, zinc, gold, tungsten. **Ore min:** Galena, pyrite, chalcopryrite, sphalerite, molybdenite, scheelite. **Gangue:** Quartz, calcite. **Deposit:** Sheared and fractured mineralized zones mostly 3 to 5 ft., but in places 20 ft. wide in fine-grained metamorphic rocks. Zones are principally vein quartz. **Dev:** 150-ft. adit, 50 ft. of drifts, several open cuts, a caved adit, and a 24-ft adit below high-water level of Conconully Lk. **Assays:** 70 to 125 oz. Ag, 11% to 15% Pb, tr. Au. 13 samples across widths of 4 to 12 ft. gave weighted av. of 0.163% WO<sub>3</sub> and showed 0.02% to 0.06% Cu, 0.1% to 0.3% Pb, 0.1% to 0.4% Zn, 0.02% to 0.06% Mo. **Ref:** 12, p. 58. 13, p. 92. 37, pp. 43-44. 75, p. 29. 157. 158.

**Laeuna**

(see Leuena)

**Lakeview**

(see Prize under lead)

**Last Chance (154)**

**Loc:** SE¼NE¼ sec. 31, (35-25E), at N. end of Ruby Hill, Conconully dist. **Elev:** 3,500 ft. **Access:** Mine openings reached by the Arlington mine road 1½ mi. NW. of the Arlington mine. **Owner:** Leased to Benton Bailey, Okanogan, Wash. (1949). **Ore:** Silver, lead, copper, zinc. **Ore min:** Argentiferous tetrahedrite, galena, chalcopryrite, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** Vein in gneiss and schist varies from 8 to 20 ft. and av. 12 ft. in width. One payshoot had a width of 2 to 4 ft. and a length of 200 ft. **Dev:** 650-ft. drift, 300-ft. shaft with 800-ft. drift at bottom. **Assays:** Ore shipped (1920) av. 30 oz. Ag, 17% Pb, 4% Cu. **Prod:** 1920, 1921, 1924. **Ref:** 46, p. 201. 68, p. 5. 75, p. 32. 97, 1920, 1921, 1924. 104, 12/15/35, p. 26. 129, pp. 254-255. 141, p. 20.

**Last Chance (43)**

(see under gold)

**Launa**

(see Leuena)

**Leadville (101)**

(see under gold)

**Leonora (155)**

(see under lead)

**Leuena (Laeuna, Launa) (145)**

**Loc:** SW¼ sec. 35, (36-24E), near crest of S. spur of Mineral Hill, Conconully dist. **Elev:** 4,600 ft. **Prop:** 1 claim. **Owner:** Thomas L. Nixon and Chester F. Griesemer, Tacoma, Wash. (1892). **Ore:** Silver, copper, gold. **Ore min:** Tetrahedrite, stephanite, argentite. **Deposit:** Quartz vein 7 ft. wide. **Dev:** 50-ft. shaft, 75-ft. shaft, 60-ft. adit, 70-ft. crosscut. **Assays:** Assays as high as 200 to 860 oz. Ag, 1.13% to 2.12% Cu, tr. Au. **Prod:** Reportedly several carloads shipped to San Francisco prior to 1890. **Ref:** 12, p. 59. 13, p. 96. 75, pp. 28-29.

**Lilman (217)**

**Loc:** Sec. 26, (31-30E), adjacent to Apache claim. **Access:** Road. **Prop:** 3 unpatented claims: Lilman, Lilman Fraction, Nina Lu. **Owner:** L. E. Latourette, Portland, Oreg. (1940). **Ore:** Silver, gold, copper, nickel. **Ore min:** Tetrahedrite, chalcopryrite, pyrite, pyrrhotite. **Deposit:** Said to be replacement veins in granite from 1½ to 20 ft. wide. **Dev:** 150-ft. adit, 50-ft. shaft, 35-ft. shaft. **Assays:** 64 oz. Ag, 0.12 oz. Au, 2.6% Cu. Picked samples as high as 2,000 oz. Ag. **Prod:** 16 tons prior to 1940. **Ref:** 158.

**Little Chief (Double Header, Grand Coulee) (218)**

**Loc:** NW¼ sec. 35, (31-30E). **Elev:** 2,050 ft. **Access:** 3 mi. SW. of Nespelem by good gravel road. **Prop:** 18 unpatented claims. **Owner:** Ruby Silver Mines, Inc., Yakima, Wash. (1953—). Double Header Mining Co. (1911-1926). Grand Coulee Mines (1936-1938). Nespelem Consolidated Mines, Inc. (1939-1940). **Ore:** Silver, gold, copper. **Ore min:** Pyrargyrite, argentite, stephanite, pyrite, antimony oxide (?), chalcopryrite. **Gangue:** Quartz, sericite, calcite. **Deposit:** Ore shoots along a fracture zone in granite 2 to 10 ft. wide. Largely replaced by quartz. **Dev:** 3,000 ft. of workings on 3 levels include 3 adits, a shaft, and 7 stopes. **Assays:** Assay value of different lots of ore shipped to smelter in 1911 and 1912 ranged from 0.09 oz. Au, 77.7 oz. Ag to 0.31 oz. Au, 590.59 oz. Ag. Another assay shows 4% Cu. **Prod:** More than \$10,000 by 1921. Produced in 1937, 1954. **Ref:** 97, 1912, 1918, 1919, 1938. 98, 1918-1926. 105, 1911, p. 773. 112, p. 176. 122, p. 74. 129, pp. 213-214. 141, p. 22.

**Little Chopaka (71)**

(see under lead)

**Little Johnnie (238)**

**Loc:** Sec. 27, (31-30E), adjoining Apache claim on W., Nespelem dist. **Ore:** Silver, gold. **Ref:** 158.

**London**

(see Methow under gold)

**Lone Pine (Submarine) (78)**

**Loc:** N½ sec. 3, (40-26E), a few hundred yd. S. of the international boundary. **Elev:** 2,600 ft. **Access:** 10 mi. by road from Oroville. **Owner:** Southern Minnesota & Washington Mining Co. (1921-1924). **Ore:** Silver, lead, copper, gold. **Ore min:** Argentiferous galena, chalcopryrite, pyrite, and a little covellite and bornite. **Gangue:** Quartz. **Deposit:** A 1- to 10-ft. quartz vein in gabbro contains milling ore. Vein shattered by post-mineral movements. **Dev:** 300-ft. adit, 1,000-ft. adit, other short adits. **Ref:** 58, p. 65. 98, 1922, p. 1666; 1925, p. 1833. 129, pp. 243-244.

**Lone Star (11)**

(see under gold)

**Lone Star (Star) (146)**

(see under lead)

**Louisa**

(see Standard and Louisa under gold)

**Lucky Jim (21)**

(see under copper)

**Lucky Lady (Silver Queen) (119)**

**Loc:** Secs. 33 and 34, (38-26E) and sec. 3, (37-26E), 12 mi. W. of Tonasket. **Prop:** 2 claims: Silver King, Silver Queen. **Owner:** Lucky Lady, Inc. (1937). **Ore:** Silver, gold. **Ref:** 58, p. 41. 158.

**Luke**

(see Molly under copper)

**Lulu**

**Loc:** Galena area, NW. of Silver Belle group. **Prop:** 1 claim. **Owner:** Gus Lieder and A. D. McKey (1892). **Ore:** Silver, copper, gold. **Ore min:** Argentite, chalcocite. **Deposit:** 4-ft. quartz vein. **Assays:** 0.10 oz. Au, 320 oz. Ag, 0.40% Cu. **Ref:** 13, p. 111.

**McGrath**

(see under zinc)

**MacLean**

(see Roosevelt under iron)

**Majestic**

(see under gold)

**Mammoth (135)**

**Loc:** Sec. 30, (36-25E), NE. of the Monitor property. **Prop:** 1 claim. **Owner:** Robert Hargrove, Conconully, Wash. (1892). **Ore:** Silver, copper, gold. **Gangue:** Quartz. **Deposit:** 2 veins, upper one 5 ft. and lower one 6 ft. thick. **Dev:** Each vein developed by a 30-ft. crosscut. **Assays:** Upper vein, 7.13% Cu, 330 oz. Ag, 3.10 oz. Au. Lower vein, 87 oz. Ag, 1.10 oz. Au. **Prod:** A shipment of ore to the smelter at Helena, Montana, in 1889 netted \$250 per ton. **Ref:** 13, p. 95.

**Maquae**

(see under gold)

**Marguerite (156)**

(see under copper)

**Mazama Pride (18)**

(see under gold)

**Mazama Queen (10)**

(see under gold)

**Methow (47)**

(see under gold)

**Mid Range (24)**

(see under gold)

**Mills**

(see under gold)

**Mineral Hill (Washington Consolidated, Seven Devils) (136)**

**Loc:** Near SW. cor. sec. 31, (36-25E) and extending up Mineral Hill to N½ sec. 2, (35-24E). **Elev:** 2,300 to 3,700 ft. **Access:** 2-mi. road from Conconully. **Prop:** 13 patented claims. **Owner:** Sunny Peak Mining Co., Spokane, Wash. (1948—). Richard Malone and George Gubser (1892). Mineral Hill Mining Co. (1906-1909). Lone Star Consolidated Mining Co. (1929). Central Mining & Milling Co. (1939). **Ore:** Silver, gold, lead, zinc, copper. **Ore min:** Galena, sphalerite, pyrite, chalcopryrite, tetrahedrite, molybdenite. **Gangue:** Quartz, sericite. **Deposit:** Quartz veins in granite. 2 parallel veins cut by lower adit are each 11 ft. wide. Upper workings expose 2 veins, one 12 in. wide, the other 6 to 36 in. wide. **Dev:** 800-ft. lower adit and an upper adit with more than 2,000 ft. of development. **Assays:** Vein said to carry \$5.60 Au. One assay showed 60 oz. Ag, 15% Pb. **Prod:** Produced flotation conc. in 1938-1939. **Ref:** 12, p. 61. 13, p. 96. 33, 1907, p. 798; 1908, p. 950. 46, pp. 211-212. 75, pp. 27-28. 97, 1938, p. 490; 1940, p. 478. 105, 1/04, p. 70; 1906, p. 229. 106, 12/3/28, p. 19; 8/2/29. 114, no. 5, 1909, p. 82.

**Minnehaha (138)**

**Loc:** Sec. 31, (36-25E), an extension of the Homestake property, Conconully dist. **Elev:** 1,500 ft. above Salmon R. **Owner:** George Cooper and T. A. Wilson (1892). **Ore:** Silver, lead, gold. **Ore min:** Galena, tetrahedrite, pyrite. **Gangue:** Quartz. **De-**



**posi:** A 17-ft. vein carries several rich paystreaks. **Dev:** 200-ft. crosscut. **Assays:** 12½% to 14% Pb, 98 to 113 oz. Ag, tr. Au. **Ref:** 13, p. 92.

**Minnie (35)**  
(see under gold)

**Modoc (212)**  
(see under copper)

**Mohawk**  
(see under lead)

**Mohawk**  
(see under zinc)

**Molly (12)**  
(see under copper)

**Molly (Sheep Mountain)**  
(see Sheep Mountain under molybdenum)

**Molson**  
(see Poland China under gold)

**Moncosilgo (86)**  
(see under copper)

**Moneymaker (193)**  
**Loc:** Near SW. cor. sec. 26, (34-31E), Park City dist. **Ore:** Silver, gold. **Gangue:** Quartz, manganese oxides. **Deposit:** Zone of sheared silicified granite in which are 2 or more streaks of vesicular iron-stained quartz from 1 to 3 or 4 ft. wide. **Dev:** Large open pit 15 ft. deep. **Assays:** Sample from one of the streaks assayed 2.72 oz. Ag. **Ref:** 122, p. 101.

**Monitor (140)**  
(see under lead)

**Montana (219)**  
**Loc:** NW¼ sec. 35, (31-30E), ¼ mi. SE. of Little Chief. **Access:** 3 mi. SW. of Nespelem by good gravel road. **Prop:** 1 claim: Montana. **Owner:** May be part of Nespelem Consolidated Mines, Inc. holdings. **Ore:** Silver, gold. **Ore min:** Ruby silver, pyrite. **Gangue:** Quartz, sericitized granite. **Deposit:** Vein contains a few specks of the ore minerals. **Dev:** Shaft, flooded 1918. **Ref:** 58, p. 45. 122, p. 75.

**Monterey (177)**  
(see under copper)

**Montgomery**  
(see Tonasket under copper)

**Mother Lode**  
(see Crystal Butte under gold)

**Mountain Beaver (6)**  
(see under gold)

**Mountain Boy (199)**  
(see under lead)

**Mountain Sheep (56)**  
**Loc:** Secs. 21 and 28, (40-25E), ¾ mi. N. of Ruby mine, Nighthawk dist. **Access:** Railroad and county road cross the property. **Prop:** 7 patented claims: Mountain Sheep, Boston Boy, Good Hope, Yellow Jacket, Los Amigos, Portal, Mecca; also an unpatented claim and 2 millsites. **Owner:** Joe S. Wilson (1954). G. A. Teele, Nighthawk, Wash. (1934). **Ore:** Silver. **Deposit:** On same fault as and similar to Ruby deposit. Vein can be traced for 3,000 ft. along the outcrop. **Dev:** 3 adits totaling about 2,000 ft. **Assays:** Samples from upper adit showed tr. to 0.04 oz. Au, 99.8 oz. Ag. **Prod:** Few cars of ore prior to 1911. **Ref:** 104, 6/15/34, p. 29. 113, 7/34, p. 15. 154, p. 95.

**Mule Deer**  
(see under gold)

**Multnomah (213)**  
(see under copper)

**Myrtle**  
(see St. Paul)

**Nevada (157)**  
(see also Peacock)

**Loc:** NE¼ sec. 30, (35-25E), W. of Reservoir Cr. on SE. flank of Peacock Mtn., Ruby dist. **Elev:** 2,900 ft. **Access:** 1 mi. NW. of town of Ruby by road. **Prop:** 1 claim of Peacock group. **Owner:** Peacock Mining & Milling Co. (1917). **Ore:** Silver, lead, copper. **Ore min:** Galena, tetrahedrite, pyrite, chalcopryrite, sphalerite, stromeyerite. **Gangue:** Quartz. **Deposit:** Vein about 8 ft. wide, with granite footwall and gneiss-schist hanging wall, contains paystreaks as much as 1 ft. wide. **Dev:** 216-ft. shaft, 1,300-ft. adit with drifts on the 40- and 100-ft. levels. **Assays:** Carload shipped av. \$27 per ton, \$10 of which was in Ag and Pb. **Prod:** A carload of ore reportedly shipped about 1900. **Ref:** 12, pp. 61-62. 75, p. 30. 98, 1925, p. 1827. 112, p. 197.

**New Deal**  
(see Antimony Queen under antimony)

**New Hope (8)**  
(see under copper)

**New London**  
(see Methow under gold)

**Nighthawk (72)**  
(see under lead)

**Nina Lu (220)**  
**Loc:** Sec. 26, (31-30E). **Owner:** E. E. Latourette, Portland, Oreg. **Ore:** Silver, gold, copper. **Ref:** 158.

**Nip and Tuck (178)**  
(see under copper)

**North Star (28)**  
(see under gold)

**Northern Gold**  
(see Bodie under gold)

**Number One (73)**  
(see under lead)

**O. K. (85)**  
(see under copper)

**Occident (94)**  
(see under gold)

**Oceanic**  
(see under gold)

**Okanogan Belle (137)**  
**Loc:** Sec. 30, (36-25E), northern extension of the Evening Star claim, Conconully dist. **Owner:** F. S. Hines, Tacoma, Wash. (1892). **Ore:** Silver, lead. **Ore min:** Galena, pyrite, argentite. **Gangue:** Quartz. **Deposit:** 13-ft. vein. **Dev:** 150-ft. crosscut. **Assays:** Assays from crosscut and dump show 10% Pb, 92 to 95 oz. Ag. **Ref:** 12, p. 61. 13, p. 93.

**Okanogan Free Gold (87)**  
(see under gold)

**Oriental & Central**  
(see American Flag under gold)

**Oro Fino**  
(see under gold)

**Oversight (239)**

(see under lead)

**Overtop**

(see Poland China under gold)

**Owasco**

(see Okanogan Free Gold under gold)

**Palmer Mountain Tunnel (115)**

(see under gold)

**Panama (240)**

**Loc:** Secs. 24 and 27, (31-30E), 4 mi. W. of Nespelem. **Elev:** 1,000 ft. above Columbia R. **Prop:** 5 unpatented claims: Foresight, Coulee Fraction, Jessie N., Panama, Panama Fraction. **Owner:** Grand Coulee Mines, Inc. (1937-1939). Reserve Silver Mining Co. (1919-1922). Panama Silver Mining Co. (1921-1924). **Ore:** Silver, gold. **Ore min:** Stephanite, argentite, native silver, pyrite, a little chalcopryrite. **Deposit:** Quartz veins along fracture zones in altered granite. Main zone is about 4 ft. wide and carries an 8-in. quartz vein. **Dev:** 30-ft. crosscut, 30-ft. drift, and 35-ft. stope on upper level. 170-ft. crosscut and 100-ft. drift on middle level connected by raise and stope to upper level. Lower level has 155-ft. crosscut and 220 ft. of drifts. **Assays:** 12 tons of handpicked ore returned 56.83 oz. Ag, 0.32 oz. Au in 1919. 13 tons in 1936 av. \$40 per ton. **Prod:** 12 tons in 1919, 1¼ tons in 1921, 13 tons in 1936. **Ref:** 97, 1919, 1921, 1923. 98, 1918-1925. 104, 2/28/34; 6/15/35, p. 27. 116, no. 2, 1911, pp. 40-41. 129, pp. 209-211. 141, p. 22. 158.

**Par Value (221)**

**Loc:** NW¼ sec. 35, (31-30E), adjoining Little Chief Mine on SE. **Access:** 3 mi. by good gravel road SW. of Nespelem. **Prop:** May be included in the present Little Chief claims. **Ore:** Silver. **Ore min:** Pyrite, argentite, pyrargyrite, cerargyrite. **Deposit:** Believed to be an extension of the Little Chief lode though not so well mineralized. **Dev:** 68-ft. shaft. **Ref:** 122, p. 75.

**Parallel**

(see under gold)

**Park and Central (200)**

(see under lead)

**Pateros**

(see Sullivan under gold)

**Pay Day (25)**

(see under gold)

**Peacock (150)**

(see also Blue Grouse, Republic under lead, Nevada under silver, Wyoming under copper)

**Loc:** Sec. 19, (35-25E), on summit of McDonald Peak, Conconully dist. **Prop:** Nevada, Blue Grouse, Republic, Wyoming, and other claims. **Owner:** Conconully Mines, Inc., Yakima, Wash. (1954—). Peacock Mining & Milling Co. (1917-1924). Peacock Mining Co. (1949). **Ore:** Silver, gold, copper, lead, zinc. **Ore min:** Galena, tetrahedrite, chalcopryrite, sphalerite, pyrrhotite, pyrite. **Gangue:** Quartz, sericite. **Deposit:** Quartz veins along contact between quartz diorite and metamorphics. **Dev:** 170-ft. crosscut. **Assays:** Cu, 0.5% and 0.8%; Pb, 2.2% and 18%; Ag, 10.4 and 19.2 oz. (2 samples from shaft). **Prod:** Has produced. **Ref:** 12, p. 53. 13, pp. 82-83. 46, pp. 204-206. 68, p. 15. 75, pp. 29-31. 97, 1923, p. 413; 1924, p. 293; 1926, p. 467. 141, p. 22.

**Peacock (Bornite) (2)**

(see under copper)

**Pendennis (170)**

(see under gold)

**Pennsylvania****Loc:** Nighthawk dist. **Ore:** Silver, gold. **Ref:** 63, p. 102.**Peoria (32)**

(see under gold)

**Phil Sheridan**

(see Sheridan)

**Pinnacle (102)**

(see under gold)

**Pittsburg (231)**

**Loc:** SE¼ sec. 21, (31-30E), about ½ mi. W. of the Gould & Curry property, Nespelem dist. **Owner:** William Barnard and E. Christianson (1939). **Ore:** Silver, lead. **Ore min:** Pyrite, galena, chalcopryrite, malachite. **Deposit:** Ore in fractures in highly silicified and altered granite. Good-sized silver-lead ore body reportedly exposed. **Dev:** Open pits and steeply inclined shaft. **Prod:** 1914. **Ref:** 97, 1914, p. 651. 122, p. 77. 158.

**Plant-Callahan (158)**

**Loc:** Near NE. cor. sec. 32, (35-25E), on steep hillside 1 mi. SE. of Ruby. **Elev:** 2,000 ft. **Prop:** Several claims. **Ore:** Silver, copper. **Ore min:** Tetrahedrite. **Deposit:** Mineralization occurs in stringers and bunches of quartz in a shear zone in biotite schist. The stringers and bunches range from mere seams to masses several feet across. **Dev:** 65-ft. adit, 175-ft. adit, open cuts, shallow shaft. **Assays:** Selected samples assayed as high as \$1,000 Ag. **Prod:** Reportedly a small shipment of rich silver ore in 1886 yielded \$6,000. **Ref:** 75, p. 31.

**Pointer**

**Loc:** On Mineral Hill, Conconully dist. **Ore:** Silver. **Dev:** 150-ft. adit. **Ref:** 63, p. 94.

**Poland China (166)**

(see under gold)

**Poorman**

(see under lead)

**Prize (65)**

(see under lead)

**Pthomigan**

(see under cobalt)

**Pyrargyrite**

(see Ruby)

**Q. S. (123)**

(see under copper)

**Rainbow (112)**

(see under gold)

**Ramore (208)**

(see under lead)

**Ramsey (210)**

(see under copper)

**Rattlesnake (31)**

(see under gold)

**Rebecca (243)**

(see under copper)

**Reco (171)**

(see under gold)

**Red Bird (216)**

(see under copper)

**Red Jacket (116)**

(see under gold)

**Red Shirt (33)**

(see under gold)

**Reedy**

(see Antimony Queen under antimony)

**Republic (159)**

(see under lead)

**Rich Bar (79)**

(see under copper)

**Riverside**

(see under gold)

**Rock House**

(see under gold)

**Roosevelt (179)**

(see under iron)

**Ruby (Pyrargyrite) (62)**

**Loc:** SE  $\frac{1}{4}$  sec. 28, (40-25E), on W. side of the valley, Nighthawk dist. **Elev:** 2,000 ft. **Access:** 4 mi. by road N. of the N. end of Palmer Lk. **Prop:** 5 claims: Crescent, Beggars Choice, Labyrinth, Mystic Shrine, Hide and Seek. **Owner:** Nighthawk Mines, Inc. (1941). Ruby Mining Co. (1905-1918). Pyrargyrite Mining Co. (1918-1926). Chloride Mining Co. (1929-1934). **Ore:** Silver, lead, gold, copper, zinc. **Ore min:** Pyrite, chalcopryrite, arsenopyrite, galena, sphalerite, proustite, pyrargyrite, argentite, free gold, malachite, azurite, limonite. **Gangue:** Quartz, calcite, gouge. **Deposit:** Vein from a few in. to 6 ft. wide in gabbro or granodiorite partially fills a gouge-lined fault zone. Veins tend to pinch and swell. **Dev:** 6,000 ft., 1,300 ft. of which is in adits and the remainder in drifts, raises, and crosscuts. **Assays:** Av. of high-grade ore taken from dump 0.01 oz. Au, 92.1 oz. Ag. Payshoot ore av. \$10 to \$15, high-grade av. \$60. Main values in Ag. **Prod:** \$25,000 in 1915-1920, 1922-1923, 1939. **Ref:** 33, 1907, p. 987. 46, pp. 224-225. 58, p. 48. 97, 1905, 1908, 1910, 1917, 1921-1923, 1935, 1940. 98, 1918-1926. 104, 5/15/32, pp. 25-26; 3/30/34, p. 25. 105, 2/4/05, p. 78; 2/18/05, p. 111; 1/06, p. 46; vol. 92, 1906, p. 46; vol. 124, 1922. 106, 8/2/29. 112, p. 197. 129, pp. 237-240. 130, p. 87. 141, pp. 20, 22, 51. 154, pp. 94-95. 158.

**Ruby**

**Loc:** On Ruby Mtn. **Elev:** 3,000 ft. **Access:** Wagon road from main county road. **Owner:** Thomas Donan, John Clunan, William Milliken, and Jonathan Bourne (1890). **Ore:** Silver, gold, copper. **Ore min:** Pyrargyrite, cuprite, native silver, malachite. **Deposit:** Quartz vein 6 to 18 ft. wide in which are high-grade shoots of ore. One shoot was 2 ft. wide. **Dev:** 60-ft. shaft with 30-ft. crosscut, 50-ft. adit. **Assays:** Assay on the 2-ft. shoot gave \$320 Au, Ag. **Prod:** 1937. **Ref:** 12, pp. 50-51. 97, 1938, p. 459.

**Ruby Silver**

**Loc:** Nespelem dist. **Owner:** C. H. Beggs and Gus Mitchen, Nespelem, Wash. **Ore:** Silver, gold. **Ore min:** Galena, stephanite, argentite. **Deposit:** Ore in quartz along fault planes and fractures in granite. **Assays:** 0.02 to 0.07 oz. Au, 57.35 to 612.2 oz. Ag. **Prod:** 1915-1919. **Ref:** 158.

**Rush (63)**

(see under gold)

**Russia**

(see under copper)

**Safe Deposit**

(see under copper)

**Saint (80)**

(see under gold)

**St. Anthony (41)**

(see under gold)

**St. Lawrence**

(see under gold)

**St. Paul (Hilo, Myrtle) (241)**

**Loc:** E  $\frac{1}{2}$  NE  $\frac{1}{4}$  sec. 27, (31-30E), 2  $\frac{1}{2}$  mi. W. of Nespelem. **Access:** Truck road. **Prop:** 6 unpatented claims: Hilo Nos. 1 and 2, St. Paul, Fourth of July, Manganese, Boundary. **Owner:** Elmer Seeley, Nespelem, Wash., leasing to S. J. Pooley, Elmira, Wash. (1939). **Ore:** Gold, silver, manganese. **Ore min:** Rhodochrosite, galena, chalcopryrite, pyrite, bornite, argentite. **Gangue:** Quartz. **Deposit:** A mixture of quartz and rhodochrosite occurs along shear zones in decomposed granite. One such zone is 4 ft. wide. Stringers of ore minerals are narrow and short. **Dev:** 700 ft. of shaft and adit. **Assays:** One portion of the shear zone said to run \$6 in Ag. **Ref:** 43, vol. 105, p. 1082. 130, p. 79. 141, p. 86. 158.

**Salmon River (139)**

**Loc:** SW  $\frac{1}{4}$  sec. 31, (36-25E), on E. side of Salmon R.  $\frac{1}{4}$  mi. SE. of Tough Nut property. **Elev:** 3,000 ft. **Access:** North of Conconully by road. **Prop:** 5 claims: Salmon River Chief, Knickerbocker, Salmon Creek, Wellington, Manhattan. **Owner:** Henry Wellington (1892). **Ore:** Silver, lead, gold, copper, zinc. **Ore min:** Galena, argentite, tetrahedrite, arsenopyrite, sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz. **Deposit:** Veins in sandy mica schist. A 3-ft. vein with a 12-in. paystreak, a 1- to 4-ft. vein, a 3-ft. vein, a 5-ft. vein with 18-in. paystreak, and a 4-ft. vein. **Dev:** 150-ft. crosscut with 500 ft. of drifts, 20-ft. adit, 20-ft. crosscut, 30-ft. adit. **Assays:** Tr. to 4 oz. Au, 36 to 83 oz. Ag, 6% to 20% Pb. **Ref:** 12, pp. 56-58. 13, pp. 90-92. 46, p. 203. 75, p. 26.

**San Marino (222)**

(see under gold)

**Schulz and Chesney (53)**

(see under gold)

**Seven Devils**

(see Mineral Hill)

**Sharp**

(see Silver King under copper)

**Sharp and Balthus (201)**

(see under zinc)

**Shaw-Bergman**

(see under copper)

**Sheep Mountain (1)**

(see under molybdenum)

**Shelby**

**Loc:** On W. side of Peacock Hill, Ruby dist. **Prop:** 1 claim. **Owner:** J. P. Fogarty, Edward Pryun, and William Stedman (1892). **Ore:** Silver, lead, gold. **Ore min:** Galena, arsenopyrite. **Gangue:** Quartz. **Deposit:** 6-ft. vein. **Dev:** 75-ft. inclined shaft. **Assays:** 29 to 140 oz. Ag, 0.5% to 5% Pb, tr. Au. **Ref:** 13, p. 85.

**Sheridan (Phil Sheridan) (187)**

**Loc:** SW  $\frac{1}{4}$  sec. 24, (38-31E), in small gulch 1 mi. N. of the E. Fk. of Toroda Cr., Sheridan dist. **Access:** About 4 mi. E. of the old town of Toroda by road. **Prop:** 10 patented claims. **Owner:** A. C. Perrott, Oroville, Wash. (1951—). Carey Mining & Milling Co. (1915-1919). Carey Mining & Development Co. (1916-1921). J. P. McCormick (1921). Blue Stem Mining Co. (1921-1926). **Ore:** Silver, gold, lead, copper. **Gangue:** Quartz, calcite. **Deposit:** A 1- to 7-ft. shear zone in phonolite consists of brecciated country rock cemented by quartz and calcite. No visible ore minerals; assays necessary to determine

ore. **Dev:** A series of crosscuts over a distance of 500 ft. up the hillside, also a 200-ft. winze, a lower 190-ft. adit, a 300-ft. adit, a 168-ft. adit with a 390-ft. drift, a 300-ft. shaft. **Assays:** Several carloads of conc. av. 300 oz. Ag. Mill feed av. 15 oz. Ag. Ore shipped av. \$40 per ton, chiefly in Ag. **Prod:** Several carloads of conc. about 1918. Produced 1910-1919 (est. between \$60,000 and \$100,000). **Ref:** 97, 1910-1919. 98, 1922-1926. 129, pp. 194-196.

**Sherman (165)**  
(see under lead)

**Sidewinder**  
(see under gold)

**Silent Friend (95)**

**Loc:** SE¼ sec. 10, (39-26E), E. of the Spokane claim, Wan-nacut Lk. dist. **Prop:** 1 claim. **Ore:** Silver, gold. **Ore min:** Pyrite. **Gangue:** Quartz. **Deposit:** Said to be a large vein. **Dev:** 30-ft. shaft. **Assays:** Assays from outcrop gave \$10 Ag, Au. **Ref:** 13, p. 105.

**Silver Bell (190)**  
(see under gold)

**Silver Belle**

**Loc:** Galena area. **Prop:** 4 claims: Silver Belle, Silver Side, Gussie Everett, Kismet. **Owner:** Ben R. Everett and W. H. Cogswell, Tacoma, Wash. (1892). **Ore:** Silver, copper. **Ore min:** Chalcocite, argentite. **Deposit:** Quartz vein 2½ ft. wide. **Ref:** 13, p. 111.

**Silver Bluff**

**Loc:** Galena area. **Prop:** 1 claim. **Owner:** Montana & Washington Mining & Milling Co. (1922-1926). H. McCartney and the Chilson brothers (1892). **Ore:** Silver, copper, gold. **Ore min:** Argentite, chalcocite. **Gangue:** Quartz. **Deposit:** Vein 2 ft. wide on surface. **Dev:** 65-ft. inclined shaft. **Assays:** Tr. Au, 97 to 110 oz. Ag, 2.9% to 3.5% Cu. **Prod:** Credited with \$80,000 to end of 1923. **Ref:** 13, p. 112. 97, 1925, p. 559. 98, 1925, p. 1828; 1926, p. 1588.

**Silver Cliff (242)**

**Loc:** Sec. 17, (30-31E). **Access:** 5 mi. by road SSE. of Nespelem. **Ore:** Silver, lead. **Ore min:** Pyrite, galena, chalcoppyrite. **Gangue:** Quartz, sericite, rhodochrosite. **Deposit:** 2 main lodes, one 2 to 36 in. wide, the other 4 to 18 in. wide, consist of quartz replacements of sericitized granite. The granite is sparsely mineralized. **Dev:** 3 adits, 110, 75, and 200 ft. long. **Prod:** Carload of ore said to have been shipped. **Ref:** 58, p. 63. 122, pp. 75-76.

**Silver King (Sharp) (19)**  
(see under copper)

**Silver King (Bunker Hill) (141)**  
(see under lead)

**Silver Ledge (37)**  
(see under gold)

**Silver Mountain (Silver Star) (120)**

**Loc:** W½ sec. 34, (38-26E) and NW¼ sec. 3, (37-26E), Tonasket area. **Access:** Road to mine. **Owner:** Silver Mountain Mining Co., Inc., Tacoma, Wash. (1951—). Silver-Lead Mining & Reduction Co. (1928-1936). Lucky Lady, Inc. (1936). **Ore:** Silver, lead, zinc, gold. **Ore min:** Pyrite, galena, sphalerite. **Deposit:** Quartz veins and silicified zones 1 to 20 ft. wide in metasediments, sparsely mineralized. **Dev:** 2,000-ft. adit. **Improv:** 400-ton mill under construction (1952). **Assays:** 6 samples showed tr. to \$3.40 Au, Ag. A sample for mill test showed 28.79 oz. Ag, 0.351 oz. Au, 1.11% Pb, 0.59% Zn. **Prod:** 1943. **Ref:** 104, 4/15/36, p. 27. 106, 8/2/28. 133, p. 39. 158.

**Silver Queen**  
(see Lucky Lady)

**Silver Seal**  
(see Antimony Queen under antimony)

**Silver Star**

**Loc:** S. extension of the Shelby, on the W. side of Peacock Hill, Ruby dist. **Prop:** 1 claim. **Owner:** B. Dougherty and William Stedman (1892). **Ore:** Silver, lead, gold. **Ore min:** Galena, arsenopyrite. **Gangue:** Quartz. **Deposit:** 4-ft. vein. **Dev:** 75-ft. inclined shaft. **Ref:** 13, p. 85. 158.

**Silver Star (121)**  
(see Silver Mountain)

**Six Eagles**  
(see Little Chopaka under lead)

**Snow Cap**  
(see Iron Cap and Snow Cap under gold)

**Snowshoe (202)**  
(see under lead)

**Sonny Boy (163)**

**Loc:** NE¼NE¼ sec. 6, (34-25E), about ¾ mi. N. of the Arlington mine. **Access:** Road from Conconully. **Prop:** Several unpatented claims. **Owner:** Ruby Mountain Mining Co., Tacoma, Wash. (1939-1940). **Ore:** Silver, lead, copper, gold. **Ore min:** Pyrite and minor amounts of galena, chalcoppyrite, tetrahedrite, and sphalerite. **Deposit:** 2 mineralized quartz veins near the contact of granite with schist. One vein 6 to 8 in. wide, the other 6 in. to 6 ft. wide. Wide vein traceable for 70 ft. **Dev:** 600-ft. adit with some 300 ft. of drifts and raises, and a 100-ft. adit. **Assays:** 150 to 200 oz. Ag. **Prod:** 1939, 1940. **Ref:** 22, p. 10. 97, 1940, p. 478; 1941, p. 474. 158.

**Spokane (27)**  
(see under gold)

**Spokane (American Rand) (91)**  
(see under gold)

**Standard**  
(see Sherman under lead)

**Standard and Louisa (48)**  
(see under gold)

**Star**  
(see Lone Star under lead)

**Stemwinder (188)**

**Loc:** NW¼ sec. 24, (38-31E), Wauconda dist. **Ore:** Silver. **Ref:** 99, 2/12/35. 104, 1/30/35, p. 24; 4/30/35, p. 29.

**Sterling (226)**

**Loc:** Sec. 8, (31-30E), Nespelem dist. **Ore:** Silver. **Ref:** 58, p. 65.

**Stone**  
(see Kelsey under copper)

**Submarine**  
(see Lone Pine)

**Sullivan**  
(see under gold)

**Summit (74)**

**Loc:** Sec. 14, (40-25E), adjoining Little Chopaka group on the S., Nighthawk dist. **Prop:** 1 claim. **Ore:** Silver, lead, gold, copper. **Ore min:** Pyrite, galena, some chalcoppyrite, a little sphalerite, scattered molybdenite. **Gangue:** Quartz, sericite. **Deposit:** 3½-ft. quartz vein in granite. **Dev:** 70-ft. inclined shaft. **Assays:** 5 to 7 oz. Ag, with minor values in Pb and Au. **Ref:** 63, pp. 103-104. 129, p. 231. 154, p. 91. 158.

**Summit (114)**  
(see under gold)

**Summit (203)**  
(see under lead)

**Sunnyside**  
(see under gold)

**Sunrise**  
**Loc:** On Mineral Hill, Conconully dist. **Elev:** 5,200 ft. **Prop:** 1 claim. **Owner:** John C. Collins and Newton Campbell (1892). **Ore:** Silver, copper, antimony. **Ore min:** Stephanite, tetrahedrite, argentite. **Gangue:** Quartz. **Deposit:** 4-ft. vein with a 14-in. paystreak. **Dev:** 75-ft. drift. **Assays:** Av. samples from the paystreak said to assay 379 oz. Ag. Samples across the vein assayed 120 oz. Ag. **Ref:** 12, p. 60. 13, p. 97.

**Sunshine**  
(see Hidden Treasure under gold)

**Sunshine Chief**  
(see Chief Sunshine)

**Surprise (223)**  
**Loc:** E½SW¼ sec. 35, (31-30E), ¾ mi. SE. of Little Chief property. **Access:** 3 mi. SW. of Nespelem by good gravel road. **Prop:** 1 claim: Surprise. **Owner:** May be part of Nespelem Consolidated Mines, Inc. holdings. **Ore:** Silver, gold. **Gangue:** Dump contains sericitized granite and iron-stained vein quartz. **Assays:** Sample from selected portion of dump assayed 0.03 oz. Au, 31.6 oz. Ag. **Ref:** 122, p. 75.

**Teddy Roosevelt**  
(see Roosevelt under iron)

**Thomas**  
(see Hill-Thomas)

**Three Links**  
(see under gold)

**Three L's (204)**  
(see under lead)

**Tom Hal**  
(see Friday under gold)

**Tonasket (125)**  
(see under copper)

**Tough Nut (142)**  
**Loc:** NW¼ sec. 31, (36-25E), on E. side of Salmon R., N. of Key property. **Access:** 1½ mi. by road N. of Conconully. **Prop:** 3 claims. **Owner:** Salmon River Mining & Smelting Co. (1902-1915). **Ore:** Silver, lead, copper, zinc. **Ore min:** Galena, pyrite, chalcopryite, sphalerite. **Deposit:** 3- to 10-ft. vein in sandy-textured quartz-mica. **Dev:** Adit said to be 250 ft. long, and 40-ft. winze on the vein. **Assays:** 500 tons of ore had est. value of \$9,000 in Ag and Pb. **Prod:** Est. \$9,000 prior to 1916. Small amount in 1939. **Ref:** 12, pp. 55-56. 13, p. 89. 46, pp. 209-210. 63, p. 93. 75, p. 25. 88, p. 33.

**Triangle**  
(see Hidden Treasure under gold)

**Trinidad**  
(see Central)

**Trinity (89)**  
(see under gold)

**Triune (96)**  
(see under gold)

**Twin Pine (214)**  
(see under zinc)

**Twisp View (29)**  
(see under gold)

**Uncle Sam**  
**Loc:** Wannacut Lk. dist. **Ore:** Silver, lead, gold. **Ref:** 63, p. 101.

**Utica (118)**  
(see under gold)

**Valley View (14)**  
(see under gold)

**Virginia**  
(see under gold)

**War Eagle (104)**  
(see under gold)

**War Eagle**  
**Loc:** W. of the Ruby mine, 1½ mi. from old town of Ruby. **Owner:** War Eagle Mining & Milling Co. **Ore:** Silver, gold, copper, lead. **Deposit:** 9-ft. vein of milling ore with a paystreak 2 ft. wide. **Dev:** Two 100-ft. shafts connected at bottoms, surface stripping. **Assays:** Assays from dump yielded 65 oz. Ag, tr. Au, some Cu, tr. to 10% Pb. **Ref:** 12, p. 51. 13, p. 84.

**Warsaw**  
(see under gold)

**Wasco (194)**  
**Loc:** Near center S½ sec. 9, (33-31E), Park City dist. **Elev:** 3,900 ft. **Prop:** Several claims. **Owner:** May be property held by West King Mining Co. **Ore:** Silver, copper, gold, lead, zinc, molybdenum. **Ore min:** Galena, sphalerite, chalcopryite, pyrite, tetrahedrite, molybdenite, molybdite, malachite, azurite. **Gangue:** Quartz, fluorite. **Deposit:** 3 sparsely mineralized quartz veins, 12 in., 24 in., and 36 in. wide, in granite and along its contact with schist. Molybdenite occurs in granite dikes. **Dev:** Shallow shaft, several small surface cuts, 400-ft. adit. **Assays:** Ores said to contain appreciable quantities of Ag and Cu and some Au. **Ref:** 7, pp. 209-210. 46, pp. 178-179. 122, pp. 100-101.

**Washington**  
**Loc:** Nighthawk dist. **Prop:** 4 claims: Diana, Enterprise, Olympia, Highland. **Owner:** Washington Mining Co. (1892). **Ore:** Silver, lead. **Deposit:** 4 veins. **Assays:** Assays on the 4 veins gave \$30 to \$220 per ton. **Ref:** 12, p. 67. 13, p. 109.

**Washington Consolidated**  
(see Mineral Hill)

**Wehe (110)**  
(see under gold)

**West King**  
**Loc:** Park City dist., 35 mi. from Republic. **Prop:** 3 claims. **Owner:** West King Mining Co. (1941). **Ore:** Silver, lead, zinc. **Deposit:** Vein in granite. **Dev:** 384-ft. adit, 2 open cuts. **Assays:** Av. value of \$15 per ton, mostly in Ag. **Ref:** 46, p. 177.

**Western Star (180)**  
(see under copper)

**Whitestone (185)**  
(see under gold)

**Windfall**  
**Loc:** Twisp dist. **Owner:** Hill Thomas (1890). **Ore:** Silver, gold, antimony. **Ore min:** Stephanite, cerargyrite. **Gangue:** Quartz. **Deposit:** A 3-ft. vein carries 13 in. of ore. **Dev:** 60-ft. shaft. **Assays:** Assays show tr. Au, 118 to 325 oz. Ag. **Ref:** 12, pp. 68-69. 13, p. 115.

**Wolverine (26)**  
(see under gold)

**Woo Loo Moo Loo (164)**

**Loc:** Sec. 5, (34-25E), Conconully dist. **Ore:** Silver, lead, copper. **Ref:** 58, p. 73. 63, p. 93.

**Wyandotte (59)**  
(see under gold)

**Wyoming (160)**  
(see under copper)

**Yakima (172)**  
(see under copper)

**Yellow Girl**  
(see under copper)

## PEND OREILLE COUNTY

**Ace High (19)**

**Loc:** Sec. 33, (39-45E), Metaline dist. **Access:** 3 mi. over difficult terrain from road. **Prop:** 2 unpatented claims. **Owner:** Jack Doyle, Metaline Falls, Wash. (1941). **Ore:** Silver, gold, copper. **Gangue:** Quartz. **Deposit:** Fracture zone impregnated with mineralized quartz has been exposed to a width of about 80 ft. **Dev:** Numerous open cuts and surface stripping. **Assays:** Handpicked sample said to have assayed \$65 per ton. **Ref:** 29, p. 38.

**D. Aldrich**  
(see Lead King under lead)

**Alger and McCullough (43)**  
(see under copper)

**American Zinc, Lead and Smelting Co.**  
(see under zinc)

**Baker City (49)**

**Loc:** Sec. 15, (32-45E), Newport dist. **Prop:** 1 unpatented claim. **Owner:** Abandoned (1941). **Ore:** Silver, lead, copper. **Deposit:** Said to be mineralized quartz veins. **Dev:** Workings caved. (1941). **Ref:** 29, p. 65.

**Barefoot (40)**

**Loc:** Secs. 2 and 11, (37-41E), Metaline dist. **Access:** 800 ft. from road. **Prop:** 4 unpatented claims. **Owner:** F. P. La Sota and associates, Metaline Falls, Wash. (1941). **Ore:** Silver, lead, zinc. **Deposit:** A 2-ft. quartz vein on a granite contact has reportedly been traced for 2,000 ft. **Dev:** A 20-ft. shaft and numerous open cuts. **Ref:** 29, p. 37.

**Bead Lake (55)**  
(see under lead)

**Bella May (32)**  
(see under zinc)

**Berkin**  
(see Wolf Creek under lead)

**Best Chance**  
(see Rainbow under copper)

**Blazing Star**  
(see under gold)

**Blue Bucket (34)**  
(see under zinc)

**Blue Jim (West) (36)**

**Loc:** Center W½ sec. 17, (38-43E), on E. bank of Pend Oreille R., Metaline dist. **Access:** Road. **Prop:** 1 unpatented claim. **Owner:** C. N. West and associates, Metaline Falls, Wash. (1945—). **Ore:** Silver, copper, gold, lead, zinc. **Ore min:**

Tennantite, malachite, siderite, chalcocopyrite, galena, sphalerite, pyrite, chalcocite. **Deposit:** Zone in limestone is laced with mineralized quartz veinlets over a width of 7 to 20 ft. for an exposed length of 200 ft. **Dev:** 40-ft. adit, 400-ft. adit, 4 open cuts. **Ref:** 29, p. 43. 114, no. 5, 1909, p. 54. 158.

**Bromide**  
(see La Sota)

**Buck (62)**

**Loc:** Sec. 28, (31-45E), Newport dist. **Access:** Near road. **Prop:** Several unpatented claims. **Owner:** Abandoned (1941). **Ore:** Silver. **Deposit:** Said to be mineralized quartz stringers. **Dev:** Caved shaft. **Ref:** 29, p. 73.

**Bunker Hill**  
(see Lead Hill under zinc)

**Campbell (57)**  
(see under copper)

**Champagne-Hoosier**  
(see Hoosier under copper)

**Clark**  
(see Josephine under zinc)

**Cliff (1)**  
(see under zinc)

**Comstock (54)**  
(see under lead)

**Conquest**  
(see Kootenai Conquest under lead)

**Copper Queen (3)**  
(see under copper)

**Corzine (38)**  
(see under lead)

**Cougar (20)**  
(see under copper)

**Dan Fieldner**  
**Loc:** Newport dist. **Ore:** Silver, lead. **Assays:** \$66 Ag, Pb (1925). **Prod:** 1925. **Ref:** 98, 1925, p. 1813.

**Deemer (17)**  
(see under gold)

**Eagle**  
(see Ries under lead)

**Elliot (23)**  
(see under lead)

**Eureka (12)**  
(see under zinc)

**Fairview Copper**  
(see Skippy and Queen Bess under lead)

**Fissure**  
**Loc:** Metaline dist. **Owner:** T. T. Richardson, Northport Wash. **Ore:** Silver, copper, gold, cobalt. **Ref:** 158.

**Flusey**  
(see Flusey-Hoopala under lead)

**Flusey-Hoopala (6)**  
(see under lead)

**Flying Squirrel**  
(see Giant-Flying Squirrel under zinc)

**Galena Hill**  
(see Whoopie-Galena Hill under zinc)